

Sirisophonphong, Phannarai (2019) *The roles of digital media in developing and strengthening public procurement in Thailand*. PhD thesis.

<https://theses.gla.ac.uk/74337/>

Copyright and moral rights for this work are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This work cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Enlighten: Theses

<https://theses.gla.ac.uk/>
research-enlighten@glasgow.ac.uk



**The Roles of Digital Media in Developing and Strengthening
Public Procurement in Thailand**

Phannarai Sirisophonphong

**Submitted in fulfilment of the requirements for
the Degree of Doctor of Philosophy (Politics)**

School of Social and Political Sciences

College of Social Sciences

University of Glasgow

September 2018

Abstract

This study examines the use of digital technology in the fight against corruption in public procurement in Thailand. The study aims to ascertain whether, and to what extent, two direct anti-corruption tools inspired by risk-based approaches or principal-agent theory are effective in controlling corruption in a country where collective action problems exist. These tools are: (i) e-bidding, a new, entirely online procurement system which replaces the previous system of e-auctions, which uses a mix of online and offline bidding methods and (ii) e-whistleblowing, an online reporting platform.

Principal-agent theory suggests that effective tools should have the capacity to increase individuals' perception that the expected costs of being corrupt is greater than the benefits. E-bidding is a managerialist strategy to prevent corruption. Online functions should increase the costs of corruption by reducing corrupt opportunities. E-whistleblowing is an interventionist strategy to detect corruption that has already occurred. In addition to increasing the chances of getting caught, ICTs could lower the individuals' perceived cost of being a whistleblower, thus facilitating whistleblowing and corruption investigation. However, collective action theory suggests that the context of a highly corrupt country is unlikely to support the use of direct anti-corruption approaches. This study proposes (i) a managerialist hypothesis that e-bidding does not reduce the risk of corruption and (ii) an interventionist hypothesis that e-whistleblowing platforms are not effective anti-corruption tools in detecting corruption.

The study uses a mixed methods methodology combining qualitative and quantitative approaches. The researcher conducted in-depth interviews with Thai public authorities. To validate the qualitative findings, (i) regressions are used to measure corruption risk at different stages of e-bidding and e-auction; and (ii) statistical data on corruption cases in Thailand is presented.

The findings suggest that digital technology in anti-corruption efforts in Thailand (i) can reduce corruption risk only to a limited extent and (ii) seems less effective in detecting corruption. Firstly, e-bidding does not reduce the risk of corruption relative to the e-auction system. Even though e-bidding performs better over time in its first year, corruption is still possible regardless of procurement methods. Secondly, the benefit of e-whistleblowing is less likely to overcome the problems of traditional whistleblowing and the risk attached. Online tip-offs mostly do not assist corruption investigation.

The findings add to the literature that in a developing country where has long been plagued with corruption, it turns out that corrupt practices keep on going or getting worse. Digital technology may enhance public procurement and whistleblowing procedures. However, without indirect anti-corruption approaches or institutional pre-conditions such as political will and strong civil society, the use of direct anti-corruption interventions on their own is less likely to increase individuals' perception that it is not worth participating in corrupt activities or it is worth the effort to oppose corrupt practices. The country is likely to slide back into systemic corruption as a result of collective action problems.

Table of Contents

| | |
|---|-----------|
| Abstract..... | 2 |
| Table of Contents | 3 |
| List of Tables | 8 |
| List of Figures..... | 10 |
| Acknowledgements..... | 12 |
| Declaration..... | 13 |
| List of Abbreviations | 14 |
| Chapter 1 Introduction..... | 15 |
| 1.1 Background of the Research..... | 15 |
| 1.2 Anti-Corruption Theoretical Framework and Research Questions | 19 |
| 1.3 Research Design | 25 |
| 1.3.1 Qualitative Methods..... | 26 |
| 1.3.2 Quantitative Methods..... | 26 |
| 1.4 Key Findings and Contributions..... | 28 |
| 1.4.1 E-procurement | 28 |
| 1.4.2 E-whistleblowing..... | 29 |
| 1.5 Structure of the Rest of the Thesis | 31 |
| Chapter 2 Theories of Corruption and Anti-corruption Interventions | 33 |
| 2.1 Introduction | 33 |
| 2.2 Definitions of Corruption | 33 |
| 2.3 Types of Corruption | 40 |
| 2.4 Theories of Anti-corruption Interventions..... | 44 |
| 2.4.1 A Principal-Agent Approach to Corruption (Agency Theory)..... | 44 |
| 2.4.2 A Collective Action Approach to Corruption..... | 63 |
| 2.5 Summary | 72 |
| Chapter 3 Thailand as a Case Study of Corruption | 75 |
| 3.1 Introduction | 75 |

| | |
|---|------------|
| 3.2 Justification on the Case Selection | 75 |
| 3.2.1 The Thai Political Context..... | 76 |
| 3.2.3 The Thai Economic Context..... | 80 |
| 3.2.3 The Thai Socio-cultural Context..... | 83 |
| 3.2.4 Corruption in Thailand..... | 88 |
| Chapter 4 E-government Initiatives for Tackling Public Procurement Corruption..... | 92 |
| 4.1 Introduction | 92 |
| 4.2 Corruption in Public Procurement..... | 92 |
| 4.3 Anti-Corruption Mechanisms in Public Procurement: E-government | 94 |
| 4.3.1 Electronic Procurement Systems | 95 |
| 4.3.2 Electronic Whistleblowing Platforms | 101 |
| 4.4 Research Questions and Hypothesis..... | 110 |
| Chapter 5 Research Methodology | 117 |
| 5.1 Introduction | 117 |
| 5.2 Case Study | 117 |
| 5.3 Qualitative Methods: Semi-Structured Interviews | 121 |
| 5.4 Quantitative Methods: Documentary Research..... | 126 |
| 5.4.1 E-procurement Systems: Regression Analysis | 127 |
| 5.4.2 E-whistleblowing Systems: Statistical Data | 133 |
| Chapter 6 E-government Procurement Systems: Qualitative Analysis..... | 137 |
| 6.1 Introduction | 137 |
| 6.2 Electronic Procurement as a Means to Prevent Corruption..... | 137 |
| 6.3 Impact of the Use of Online Procurement Systems: E-bidding to Facilitate Competition and Prevent Corruption | 140 |
| 6.3.1 E-bidding to Increase the Number of Potential Bidders' Participation | 140 |
| 6.3.2 E-bidding to Increase Budget Savings..... | 142 |
| 6.3.3 E-bidding to Increase the Risk of Being Detected..... | 146 |

| | |
|--|------------|
| 6.4 Key Problems of E-bidding | 148 |
| 6.4.1 IT Problems..... | 148 |
| 6.4.2 A Period of Unfamiliarity | 149 |
| 6.4.3 Exceptional Cases | 150 |
| 6.4.4 E-auction and E-bidding Characteristics: E-reverse Auction Vs Price Submission via Website | 151 |
| 6.5 Limitations of Online Procurement Systems..... | 152 |
| 6.5.1 Ability of Firms to Operate in a Digital Economy | 152 |
| 6.5.2 Limited Number of Suppliers in the Markets | 153 |
| 6.5.3 Collusion between Officials and Firms and among Firms | 154 |
| 6.6 Summary | 156 |
| Chapter 7 E-government Procurement Systems: Quantitative Analysis..... | 158 |
| 7.1 Introduction | 158 |
| 7.2 Corruption Strategies and Risk of Corruption in the Public Procurement Process | 158 |
| 7.2.1 Key Corruption Strategies and Corrupt Outcome Indicators..... | 158 |
| 7.2.2 Risk of Corruption in Public Procurement and Rationales for the Use of the Quantitative Outcome Indicators | 160 |
| 7.3 Corruption Risk Measurement Methodology..... | 163 |
| 7.3.1 Hypothesis Testing | 164 |
| 7.3.2 Indicators of Corrupt Outcomes | 166 |
| 7.3.3 Indicators of Corrupt Inputs..... | 167 |
| 7.4 Key Descriptive Statistics of the Risk of Corruption in Public Procurement Process .. | 170 |
| 7.4.1 E-bidding in Different Three Periods: Number of Bids Submitted per Contract and Single Received Bid..... | 170 |
| 7.4.2 E-bidding in Different Three Periods: Number of Bids Passed per Contract and Single Valid Bid..... | 172 |

| | |
|--|------------|
| 7.4.3 E-auction and E-bidding: Number of Bids Submitted per Contract and Single Received Bid..... | 174 |
| 7.4.4 E-auction and E-bidding: Number of Bids Passed per Contract and Single Valid Bid | 175 |
| 7.5 Regression Analysis | 177 |
| 7.5.1 Risk of Corruption in E-bidding in the Submission Phase: Single Received Bid .. | 177 |
| 7.5.2 Risk of Corruption in E-bidding in the Assessment Phase: Single Valid Bid..... | 178 |
| 7.5.3 Overall Risk of Corruption in E-bidding: A Winner's Market Share | 179 |
| 7.5.4 Overall Risk of Corruption in E-auction and E-bidding: A Winner's Market Share | 180 |
| 7.5.5 Overall Risk of Corruption in E-auction and E-bidding in Later Periods: A Winner's Market Share..... | 181 |
| 7.6 Summary | 182 |
| Chapter 8 E-whistleblowing: Analysis | 187 |
| 8.1 Introduction | 187 |
| 8.2 Research Findings | 188 |
| 8.2.1 The Effect of E-whistleblowing on Individuals' Reporting Behaviour..... | 188 |
| 8.2.2 The Effect of E-whistleblowing on Authorities' Investigations..... | 195 |
| 8.3 Summary | 203 |
| Chapter 9 Final Conclusions..... | 210 |
| 9.1 Introduction | 210 |
| 9.2 Summary | 210 |
| 9.2.1 Findings to the Research Question 1: E-bidding Aimed at Removing Corruption Opportunities | 212 |
| 9.2.2 Findings to the Research Question 2: E-whistleblowing Aimed at Increasing Detection Opportunities..... | 218 |
| 9.3 Generalising the Findings to Other Developing Countries | 221 |
| 9.3.1 E-procurement | 222 |

| | |
|---|------------|
| 9.3.2 E-whistleblowing..... | 226 |
| 9.4 Limitations..... | 230 |
| 9.4.1 E-procurement | 230 |
| 9.4.2 E-whistleblowing..... | 232 |
| 9.5 Future Directions..... | 232 |
| 9.5.1 E-procurement | 232 |
| 9.5.2 E-whistleblowing..... | 233 |
| Appendices | 235 |
| Appendix 1: List of 160 Pilot Central Government Agencies | 235 |
| Appendix 2: Descriptive Statistics of E-auction and E-bidding..... | 239 |
| Appendix 3: Information Plain Language Statement (E-procurement) | 242 |
| Appendix 4: Information Plain Language Statement (E-whistleblowing) | 246 |
| Appendix 5: Consent Form | 250 |
| Appendix 6: Interview Guide (E-procurement) | 252 |
| Appendix 7: Interview Guide (E-whistleblowing) | 253 |
| Appendix 8: Statistical Data Requested | 254 |
| List of References | 255 |

List of Tables

| | |
|---|-----|
| Table 2-1: Comparison among Bureaucratic, Economic, and Political Corruption..... | 54 |
| Table 3-1: Gross National Income per Capita (GNI), Atlas Method (Current US\$), of the Six ASEAN Countries between 2012-2017 | 80 |
| Table 3-2: Types and Number of Public Officials Misconduct Related to Corrupt Activities Reported to the PACC since October 2014 to August 2016..... | 89 |
| Table 5-1: Summary of Research Methods..... | 136 |
| Table 7-1: Definition of the Three Outcome Indicators..... | 167 |
| Table 7-2: Summary of the Five Regressions and Outcome and Input Indicators | 167 |
| Table 7-3: Summary of Variables in Regression Equations | 168 |
| Table 7-4: Summary of the Expected Outcomes of the Relationships between Corrupt Inputs and Corrupt Outcomes in This Study..... | 169 |
| Table 7-5: Descriptive Statistics of the Number of Bids Submitted per E-bidding Contract in Period I, II, and III..... | 170 |
| Table 7-6: Descriptive Statistics of the Number of Valid Bids per E-bidding Contract in Period I, II, and III | 172 |
| Table 7-7: Descriptive Statistics of the Number of Bids Submitted per E-auction and E-bidding Contract | 174 |
| Table 7-8: Descriptive Statistics of the Number of Valid Bids per E-auction and E-bidding Contract | 176 |
| Table 7-9: Output of Regression II: Risk of Corruption in the Submission Phase (Time Periods of E-bidding) | 178 |
| Table 7-10: Output of Regression III: Risk of Corruption in Assessment Phase (Time Periods of E-bidding) | 179 |
| Table 7-11: Output of Regression IV: Risk of Corruption as Overall Outcome (Time Periods of E-bidding) | 180 |
| Table 7-12: Output of Regression I: Overall Risk of Corruption in Public Procurement (A Winner's Market Share in E-auction and E-bidding) | 181 |
| Table 7-13: Output of Regression II: Overall Risk of Corruption in Public Procurement (A Winner's Market Share in E-auction and E-bidding in Later Periods)..... | 182 |
| Table 7-14: Summary of the Quantitative Findings..... | 184 |
| Table 8-1: Summary of the Qualitative Findings of E-whistleblowing Platforms | 209 |

| | |
|--|------------|
| Table 9-1: Summary of the Quantitative Findings: E-auction and E-bidding | 217 |
| Table A-1: List of 160 Pilot Central Government Agencies (under 21 Government Ministries) | 238 |
| Table A-2: Descriptive Statistics I: E-auction Vs E-bidding | 239 |
| Table A-3: Descriptive Statistics II: E-bidding in Period I, II, and III | 239 |
| Table A-4: Distribution of Corrupt Outcome I - Single Received Bid | 239 |
| Table A-5: Distribution of Corrupt Outcome II - Single Valid Bid..... | 239 |
| Table A-6: Distribution of Corrupt Outcome III - Winner's Share within the Issuer's Contracts | 240 |
| Table A-7: Distribution of Corrupt Input I - Procurement Type..... | 240 |
| Table A-8: Distribution of Corrupt Input II - Time Periods of E-bidding Operation (Single Received Bid and Single Valid Bid Outcomes)..... | 240 |
| Table A-9: Distribution of Corrupt Input III - Time Periods of E-bidding Operation (Winner's Share within the Issuer's Contracts Outcome) | 240 |
| Table A-10: Distribution of Control Variable I - Procuring Agencies (Ministry) | 241 |
| Table A-11: Descriptive Statistics of Control Variable II – the Log Contract Value | 241 |
| Table A-12: Interview Questions – E-procurement | 252 |
| Table A-13: Interview Questions – Online Whistleblowing..... | 253 |
| Table A-14: Data Requested from the Anti-corruption Agencies in Thailand | 254 |

List of Figures

| | |
|--|-----|
| Figure 1-1: Statistics on Digital Technology and Internet Usage in Thailand in 2014 - 2016 | 18 |
| Figure 1-2: Anti-Corruption Strategies in Public Procurement in Thailand..... | 24 |
| Figure 2-1: Klitgaard's Formula of Individuals' Judgments to Engage in Corruption..... | 48 |
| Figure 2-2: Overview of Corruption | 53 |
| Figure 2-3: Fraud Triangle Model..... | 55 |
| Figure 2-4: Links of Conditions Conducive to Corruption and Suggested Solutions Based on Agent Theory | 57 |
| Figure 2-5: The Perceived Levels of Public Sector Corruption in Singapore, Hong Kong, China, Malaysia, and Indonesia in 2012-2018 | 67 |
| Figure 2-6: Conceptual Framework of Corruption and Suggested Anti-Corruption Programs Based on Principal-Agent Approach and Collective Action Approach..... | 71 |
| Figure 3-1: The Perceived Levels of Public Sector Corruption (CPI) in the Six ASEAN Countries in 2012-2018..... | 81 |
| Figure 3-2: Number of Public Officials Misconduct Reported to the PACC (Fiscal Year 2008-2017) | 88 |
| Figure 4-1: E-auction Procedures | 100 |
| Figure 4-2: The Purported Impact of E-whistleblowing Platforms | 108 |
| Figure 4-3: Theoretical Framework of Direct Anti-corruption Approaches..... | 116 |
| Figure 6-1: Comparison of E-auction and E-bidding Procedures..... | 138 |
| Figure 6-2: The Purported Impact of Procurement Systems I | 142 |
| Figure 6-3: The Purported Impact of Procurement Systems II..... | 145 |
| Figure 6-4: The Purported Impact of Procurement Systems III..... | 147 |
| Figure 7-1: Key Corruption Strategies and Outcome Indicators of the Risk of Corruption in Public Procurement Process..... | 160 |
| Figure 7-2: Percentage of E-bidding Contracts Signed in Each Month (Period I, II, and III) | 166 |
| Figure 7-3: Distribution of the Number of Bidders per E-bidding Contract in Period I..... | 171 |
| Figure 7-4: Distribution of the Number of Bidders per E-bidding Contract in Period II | 171 |
| Figure 7-5: Distribution of the Number of Bidders per E-bidding Contract in Period III..... | 171 |
| Figure 7-6: Distribution of the Number of Valid Bids per E-bidding Contract in Period I... | 173 |
| Figure 7-7: Distribution of the Number of Valid Bids per E-bidding Contract in Period II . | 173 |
| Figure 7-8: Distribution of the Number of Valid Bids per E-bidding Contract in Period III | 173 |

| | |
|---|-----|
| Figure 7-9: Distribution of the Number of Bidders per E-auction Contract..... | 175 |
| Figure 7-10: Distribution of the Number of Bidders per E-bidding Contract | 175 |
| Figure 7-11: Distribution of the Number of Valid Bids per E-auction Contract | 176 |
| Figure 7-12: Distribution of the Number of Valid Bids per E-bidding Contract..... | 176 |
| Figure 8-1: Types of Informants Who Reported Corruption in Public Procurement in 2014 – 2016..... | 191 |
| Figure 8-2: Total Number of Corruption Cases in Public Procurement Received through the PACC Reporting Channels in 2015 and 2016 | 192 |
| Figure 8-3: Percentage of Cases Left Uninvestigated between 2014 and 2016..... | 201 |
| Figure 8-4: Percentage of Accepted and Rejected/Transferred Cases Submitted to the OAG in 2014 - 2016 | 203 |
| Figure 9-1: Structure Analysis | 211 |
| Figure 9-2: Summary of the Qualitative Findings: E-auction and E-bidding..... | 213 |
| Figure 9-3: Summary of the Qualitative Findings: E-whistleblowing Platforms | 219 |
| Figure 9-4: Findings of the Study | 222 |

Acknowledgements

I would like to express my appreciation to all those who have given me help and support during my PhD study.

First of all, I wish to extend my sincere thanks to my four PhD supervisors, Professor Sarah Birch, Dr Philip Habel, Dr Neil Munro, and Dr Christopher Claassen. The time they spent in reading my work and the insightful comments and suggestions they offered to improve this thesis have been invaluable. Without their professional guidance and support, the completion of this thesis would not have been possible.

I would also like to thank Dr Mihály Fazekas, University of Cambridge, for the time and effort in suggesting and clarifying the corruption risk index (CRI) used in this thesis. My sincere thanks are also extended to Professor Emmanuel Ogbonna and Gwen Thomas, Cardiff Business School, who gave me a great support and wrote the reference for me when I applied for my PhD.

I also wish to thank my parents and family members. I am deeply thankful for their understanding and support throughout my education. Special thanks are devoted to my mother for always believing in me during the periods of ups and downs. I would like to think that in completing this PhD thesis, I have fulfilled my parents' dreams. I wish they are proud of me.

Finally, many thanks go to my friends for all the encouragement they have given during the writing of this thesis.

Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature:

Printed Name: Phannarai Sirisophonphong

List of Abbreviations

| | |
|-----------|---|
| ADB | Asian Development Bank |
| ADB/ OECD | Asian Development Bank and Organisation for Economic Co-operation and Development |
| ASEAN | The Association of Southeast Asian Nations |
| CC | Control of Corruption Index |
| CGD | Comptroller General's Department |
| CPI | Corruption Perceptions Index |
| CRI | Corruption Risk Index |
| CSOs | Civil Society Organisations |
| ICTs | Information and Communication Technologies |
| NACC | Office of the National Anti-Corruption Commission |
| OAG | Office of the Auditor General of Thailand |
| OECD | Organisation for Economic Co-operation and Development |
| PACC | Office of the Public Sector Anti-Corruption Commission |
| RSF | Reporters Without Borders |
| TI | Transparency International |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNODC | United Nations Office on Drugs and Crime |

Chapter 1 Introduction

1.1 Background of the Research

Corruption is a serious problem in many different nations. Transparency International (TI), one of the most well-known anti-corruption non-governmental organisations, annually publishes the Corruption Perceptions Index (CPI), reflecting expert opinion about the extent of corruption in different countries. No country obtains a perfect score. This implies that no country is entirely free from corruption despite the many strategies which have been used to combat the problem.

In general, corruption is defined as the abuse of public power for private gain (Girling, 1997: vii; World Bank, 1997: 8; Rose-Ackerman, 1999: 91). Corrupt activities can take place in many circumstances but one of the most serious forms of corruption exists in government procurement. According to the Organisation for Economic Co-operation and Development (OECD) (2010a), corruption and collusion are considered as the main problems in government procurement. Procurement is an activity that allows procuring public agencies to interact financially with third party suppliers, thus creating the opportunity for corrupt acts, cronyism, favoritism, and bribery (Matechak, 2002). Several parties are usually involved, including politicians, public officials and suppliers.

In this study, corruption mainly refers to corrupt activities that take place in public procurement, at the administrative, economic, and political levels at the interface of the public and private sectors. The term covers the private wealth-seeking behaviour of public officials who misuse their positions as insiders in procurement agencies to engage in secret corrupt deals with private firms, working in an anti-competitive manner in order to allow pre-selected bidders to win government contracts in exchange for bribes.

Corruption in public procurement has had a severe impact on both the individual and the world in many ways. Corrupt activities not only provide unfair advantages to companies that have political connections, but result in higher costs and probably lower quality projects which damage the environment and may lead to personal injury or death (Transparency International, 2015). Additionally, public procurement scandals cause a decline of trust in governments and threaten government stability (Transparency International, 2014; Yukins, 2015).

Large shares of government budgets are allocated for public procurement each year, which increases the opportunity for corruption. For instance, government procurement accounts for 13-20 percent of the world's average GDP (OECD, 2013). This represents 30 and 29 percent of total government expenditure in 2009 and 2013, respectively (OECD, 2015: 136) which amounts to trillions of US dollars (Transparency International, 2015). However, it has been estimated that approximately two trillion US dollars or 20-25 percent of the procurement budget is illicitly drained each year through corrupt practices (Transparency International, 2014: 4). In addition, corruption in government procurement could increase the total cost of a project by up to 50 percent (Transparency International, 2015). As extremely large sums of public money have been lost to corruption in public procurement, anti-corruption mechanisms have struggled to solve the problem.

Thailand is an upper-middle income country (World Bank, 2018) where corruption is frequent and deeply rooted in its culture (Vichit-Vadakan, 2011). Corrupt practices in the country range from petty corruption or small amounts of bribes to grand corruption which occurs in various forms (Vichit-Vadakan, 2011) and different sectors. According to Vichit-Vadakan (2011), public procurement, especially government mega projects, has been recognised as a high-risk area for grand corruption in Thailand.

The Chamber Poll, an independent survey conducted in 2017 by the University of the Thai Chamber of Commerce revealed that businesses need to pay extra money range between 5 to 15 percent of the total contract value to corrupt politicians and public officials when bidding on government contracts (Khaosod, 2018). Moreover, in some government mega projects, losses through grand corruption increase up to 10 and 30 percent of the total project value (Vichit-Vadakan, 2011: 79). It is estimated that the cost of the damage caused by corruption in 2018 is about THB 66,271 - 198,814 million (about GBP 1,472 - 4,418 million), pushing the country's GDP down by 0.41 – 1.23 percent (Khaosod, 2018).

Nowadays, information and communication technologies (ICTs) and digital media play a critical role in people's lives and have been used by government authorities and individual citizens in attempts to curb corruption. Digital media and communications such as the Internet and social media networks are not only used for the purpose of sharing information on public services, but also for public service delivery and democratic engagement (Clarke, 2014: 395). Importantly, a number of research studies and international organisations point out that

electronic government (e-government) can play an important role in the fight against corruption (Batchelor and Scott, 2005; UNDP, 2006; Arpit, 2012; Mistry and Jalal, 2012; Hasani, 2013).

E-government is defined as the use of ICTs in public organisations to improve their internal business functions and processes in order to provide citizens, firms, and officials with high-quality public services (OECD, 2009b: 11). In general, e-government helps government agencies improve speed and reduce the cost of their main operations in delivering information and services to a wider group of citizens (McClure, 2000) and allows greater citizen engagement (Hasani, 2013). Moreover, a well thought-out e-government plan not only enhances government efficiency, accountability, and transparency (UNDP, 2006; McClure, 2000; Arpit, 2012; UN, 2015), but also builds up an inclusive environment and trust with citizens (UN, 2015).

The Thai government has begun to use digital technology as part of anti-corruption strategies. This study focuses on the use of two electronic anti-corruption tools in Thailand: *electronic procurement systems (e-procurement)* and *electronic whistleblowing platforms (e-whistleblowing)*. The purpose of this study is to find out whether and to what extent such digital anti-corruption interventions can reduce corruption risk and detect corrupt activities.

Firstly, to curb the corruption problem in public procurement, the Comptroller General's Department (CGD)¹ developed 'e-bidding' and launched the new procurement system in early 2015 to replace 'e-auction'. One of the key differences between the two systems is that all procedures of e-bidding are conducted online while e-auction is conducted through a mix of offline and online process. The outstanding benefit of e-bidding is that the system allows the government to save more on budgets compared to e-auction. It was reported that the first four month of e-bidding in 1,399 government projects which amounted to THB 11,396 million (approximately GBP 253 million) generated 11 percent on average in budget savings or about THB 1,570 million (approximately GBP 35 million) (Thaipublica, 2015). The CGD is confident that changing the whole procurement procedure to an online system will increase transparency and eventually help prevent collusion and corruption (CGD, 2015a; Thaipublica, 2015).

In addition, the use of ICTs in Thailand is on the rise. The statistics on digital technology and Internet usage in Thailand between 2014 and 2016 show that Internet, social media, and mobile

¹ The Comptroller General's Department (CGD) is the government department responsible for managing and developing the public procurement process and monitoring procurement activities to ensure optimum benefit for the country.

internet usage have increased significantly (We Are Social Agency, 2014, 2015, 2016). As can be seen from the charts below (Figure 1-1), the number of active internet users increased from 17.78 million (accounting for 26 percent of the total country's population) in 2014 to 38 million (accounting for 56 percent of the total country's population) in 2016. The number of active social media accounts also jumped from 16.86 million (accounting for 25 percent of the total country's population) in 2014 to 38 million (accounting for 56 percent of the total country's population) in 2016. Moreover, the number of active mobile internet users leapt from 16.89 million in 2014 to 30.62 million in 2016.

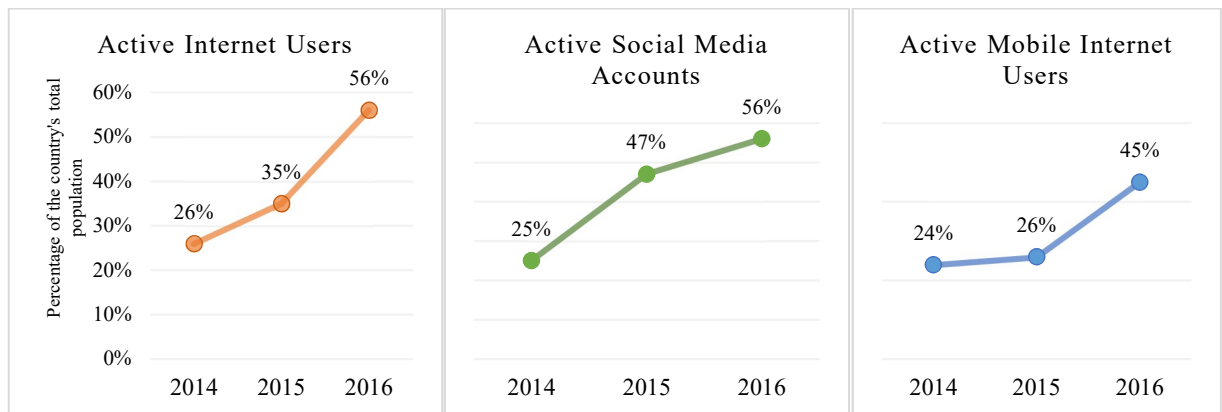


Figure 1-1: Statistics on Digital Technology and Internet Usage in Thailand in 2014 - 2016
(Source: We Are Social Agency, 2014, 2015, 2016; and Worldometers, no date)

The statistics above show the rapid growth in Internet and social media usage in Thailand. In particular, Facebook is becoming one of the largest social networking sites in Thailand with user numbers rapidly increasing. There are more than 8.6 million users in Bangkok in 2012 and the city was ranked top for the most Facebook users in the world (Socialbaker, 2012). In 2014, the city had 13.6 million Facebook users (Ghedin, 2014) and the country over 28 million, accounting for more than 41 percent of the population (Sakawee, 2014). Up until 2016, approximately half the population could access online channels.

The Thai government and public anti-corruption agencies try to keep pace with the increasing use of ICTs and advancements in technology to provide services for the public through online channels. The government has launched a policy statement designed to give clear directions in the matter of sustaining good governance and preventing and suppressing corruption and malpractice in the public sector (The Secretariat of Cabinet, 2015, 2016, 2017). In general, the government plans to modernise its practices through the use of ICTs and modify regulations to

increase transparency. The government expects that this will enable it to promote a better administration of state affairs and proactively deliver services to the public more efficiently (The Secretariat of Cabinet, 2015, 2016, 2017).

Specifically, the plan includes increasing the number of complaint centres to receive complaints from people who live in local areas, providing one stop-service centres, and offering comprehensive e-government services (The Secretariat of Cabinet, 2015, 2016, 2017). In doing so, there is an increasing trend to improve and use e-whistleblowing platforms such as an online form on mobile websites and mobile applications in addition to the traditional platforms for citizens to report corrupt activities they have experienced or perceived (The Secretariat of Cabinet, 2015, 2016, 2017).

The online platforms are likely to fulfil the needs of potential reporters and facilitate the authorities' investigation. Firstly, digital technology enables real-time reporting which makes reporting easier and quicker compared to traditional reporting platforms. Secondly, public anti-corruption organisations in Thailand such as the Office of the National Anti-Corruption Commission (NACC) encourage reporters to register accounts online for online servicing (NACC, 2015) which would enable direct communication between the authorities and reporters. This might improve the authorities' responsiveness and also assist officials in their investigations. Furthermore, people can use digital technology to make a report anonymously while avoiding online tracking, thus ensuring their security (Schultz et al., 2010). Importantly, the features of online reporting channels are perceived as a means of building public trust in the authorities and the reporting systems. As a result, this may increase the likelihood of individuals' whistleblowing and improve the quality of reports (Schultz et al., 2010). The next section will briefly present corruption theories that are used to underpin this study.

1.2 Anti-Corruption Theoretical Framework and Research Questions

The study of the effectiveness of anti-corruption interventions in this study is based on two key corruption theories: 'principal-agent approaches' and 'collective action approaches'. The principal-agent approaches (risk-based anti-corruption approaches) highlight individuals' calculations of cost-benefit about whether or not it is worth participating in or opposing corrupt activities (Klitgaard, 1988; Marquette and Peiffer, 2015). The theory suggests that effective anti-corruption mechanisms should have capacity to change individuals' calculations to make them perceive that the expected corrupt gain is negative. According to Klitgaard (1988), public

officials tend to be corrupt when the amount of corrupt gain minus moral cost and minus the probability of being caught and prosecuted, multiplied by the penalty, are greater than the combination of salary and satisfaction from not being corrupt. Cressey (1950) also points out in his fraud theory that ‘opportunity’ is one of the key elements that drives people to commit fraud. In keeping with Klitgaard’s formula and Cressey’s theory, Palmier assumes that the ‘opportunity to corrupt’, and the ‘low probability of being detected’ are two of the significant causes of corruption of public authorities (Quah, 2003).

Corruption then can be solved if anti-corruption mechanisms have capacity to remove corruption opportunities by increasing transparency and facilitating the principal’s ability to monitor and sanction their agents’ behaviour to hold them accountable (Marquette and Peiffer, 2015). Based on principal-agent theory, the conditions regarded as causing the parties involved in public procurement to be corrupt in this study are categorised as (i) the abundant opportunity for corrupt activity e.g., loopholes in public procurement systems and (ii) the low chance of being detected. This implies that effective anti-corruption interventions should have capacity to (i) reduce the opportunity to corrupt and (ii) increase the chance of (potential) offenders being caught.

In this study, removing corruption opportunities is based on ‘preventive or managerialist strategies’ (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). Managerialism is an ‘ex ante’ method that concentrates on corruption prevention (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). The approaches specifically confront the corruption problems by removing or lowering “the opportunities, incentives, or benefits” in order to prevent acts of corruption (Brata, 2014: 15). Based on the principle that “prevention is better than cure”, lowering or removing opportunity by building suitable anti-corruption procedures, systems, and protocols will reduce or eliminate individual misconduct (McCusker, 2006: 8; Larmour and Wolanin, 2013: xvii).

On the other hand, the increasing probability of corrupt behaviour being detected in this study is based on ‘repressive or interventionist strategies’ (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). The strategies are an ‘ex post’ approach which particularly highlights corrupt activities that have already occurred (Brata, 2014: 15). Interventionist scholars build anti-corruption mechanisms on the principle that society can be protected by discouraging the criminal from continuing or repeating the crime (Larmour and Wolanin, 2013: xv). The key tactic employed is to detect corrupt behaviour and by punishing offenders to deter potential

criminals from committing crime (Brata, 2014: 15). Therefore, interventionist approaches normally occur at the last stage of corrupt practice (Vander Beken, 2001: 409). Authorities wait for illegal actions to take place before the perpetrator can be charged (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv).

In this study, ‘e-procurement system’ or ‘e-bidding’ is a specific form of preventive or managerialist approaches. E-procurement is “the usage of Web-based functions and services that allows employees of a buying organisation to purchase goods and services and allows suppliers to manage and communicate the fulfilment of those purchase orders” (Pani, 2007: vi). A number of studies have claimed that e-procurement helps governments improve their accountability and transparency (Lanvin, 2005) which eventually leads to reduced corruption in the public procurement process (Neupane et al., 2012b; OECD, 2016). Specifically, e-procurement provides access to procurement information, minimises direct interaction among the parties involved such as public officials and suppliers, and increases participation and competition (OECD, 2016: 22). Most importantly, such benefits imply that online procurement systems have the capacity to prevent and lower corruption risk (Lanvin, 2005; Neupane et al., 2012b; Luijken and Martini, 2014; OECD, 2016). Therefore, government authorities could use e-procurement to ensure that their internal controls or procurement procedures act as counter-corruption operations.

Governments have increasingly adopted e-procurement to replace traditional procurement systems as a way of curbing corruption. This strategy has been tried in a number of different countries with mixed success and there is a lack of empirical evidence to prove that e-government reduces corruption. For example, the use of e-procurement has been seen to be successful in increasing competition and/or reducing the costs in South Korea (OECD, 2016), Chile, and Albania (Bertot et al., 2010: 266; Luijken and Martini, 2014: 6) or improving project quality in India and Indonesia (Lewis-Faupel et al., 2014), but less effective in facilitating the public’s watchdog role in the Czech Republic (Chvalkovská and Skuhrovec, 2010).

Firstly, corruption can occur in different phases² of public procurement and at different stages during the bidding phase. However, the successes of e-procurement suggested in previous

² In this study, the public procurement process is divided into three main stages: the pre-bidding phase; the actual bidding phase, and the post-award phase (OECD, 2016: 9). However, the analysis of this study focuses on bidding phase (the second phase) which is composed of three different stages: submission, evaluation, and overall (Fazekas et al., 2013b; Fazekas, 2016).

studies are mostly focused on particular phases/stages. For instance, previous research stated that e-procurement reduces or prevents a corruption risk because the system increases transparency (Lanvin, 2005; Neupane et al., 2012b; OECD, 2016). This success is supported by such evidence that suggests that e-procurement, through more transparency, increases the number of bidding participants (lowering the risk of corruption in the submission stage) (Balsevich et al., 2011; Luijken and Martini, 2014). However, this does not necessarily mean that corruption does not occur later, for example, in the evaluation stage.

Secondly, lower prices paid by government or a better quality of products/services provided by suppliers might occur where there is no real competition. When there is no competition, the risk of corruption is high (Fazekas et al., 2013a, 2013b, 2013c). Some previous studies claim that e-procurement through more transparency helps reduce the costs (Bertot et al., 2010; Luijken and Martini, 2014). Conversely, other research reveals that online procurement systems do not help reduce the price paid by government but instead attract higher quality firms that are in different locations to where the work will take place (Lewis-Faupel et al., 2014). However, this also does not guarantee freedom from corruption.

In Thailand, e-bidding is a new procurement system. Despite the benefits in increased budget savings, there has been apparently no concrete proof of its effectiveness in preventing corruption thus far. Therefore, this study aims to find empirical evidence that whether and to what extent e-procurement systems can reduce corruption risk in different stages of public procurement.

On the other hand, 'e-whistleblowing' is a form of repressive or interventionist strategies in which cooperation between public anti-corruption agencies and civil society is of critical importance. According to Lewis et al. (2014: 9), corruption, especially in developing countries, can be very difficult to detect. Whistleblowing, therefore, is considered an anti-corruption mechanism that can be used to uncover an official's misconduct.

Traditional reporting platforms such as walk-in service, fax, post, telephone, and e-mail are commonly provided by governments and anti-corruption organisations for people to report corruption. It is expected that digital technology could help to overcome the barriers to such reporting and reduce the potential risk of being a whistleblower. These barriers include a lack of responsiveness (Near et al., 2004: 230; ERC, 2012b: 15), the risk of retaliation (Schultz et al., 2010), and the risk of breach of confidentiality (ERC, 2012a: 5; ERC, 2012b: 6, 15).

Internet and social media have been used to promote government transparency and to support whistleblowing (Skoric et al., 2014: 101). The key benefit of online whistleblowing platforms is anonymity in reporting (Schultz et al., 2010). This function/option ensures whistleblowers' security and enables direct communication between public authorities and the reporters to improve the quality of reports (Schultz et al., 2010). This should reduce the perceived cost of reporting and further facilitate the authorities' investigation of corruption in public procurement.

The adoption of e-government processes has grown significantly across the globe whereby governments have made efforts to increase transparency, openness, and accountability. While some of these efforts have received considerable attention, the issue of whether online whistleblowing has the potential to curb corruption especially grand corruption in public procurement has not been widely considered.

According to Miceli and Near (1992; 53 - 56), whistleblowing processes have at least four stages on which previous research has focused: (i) unethical activities or misconduct perceived by potential whistleblowers; (ii) potential whistleblowers making decisions on whether or not to blow the whistle; (iii) whistleblowers blowing or not blowing the whistle; and (iv) reporting recipients providing reactions or feedback on the case reported.

However, most previous studies have not focused on the effectiveness or benefits of 'different digital whistleblowing channels'. Previous studies have investigated several factors that possibly affect individuals' intention to blow the whistle, for instance, the characteristics of misconduct and wrongdoers, the frequency and seriousness of the misconduct perceived, and the positions of wrongdoers who may affect the intention of an individual to blow the whistle (Miceli and Near, 2002; Wortley et al., 2008); and the characteristics of whistleblowers that may impact upon whistleblowing intention (Wortley et al., 2008).

Some studies have examined conditions for internal versus external whistleblowing. For example, the situational context may impact on the decision to report internally or externally (Dworkin and Baucus, 1998). Some studies have focused on the factors that make whistleblowing effective (Apaza and Chang, 2011). Other studies examine the factors that impact the use of e-whistleblowing but focus only on Web-based reporting systems (Schultz et al., 2010).

Although there have been extensive studies on whistleblowing, few studies have examined whether whistleblowing processes differ for whistleblowers who choose online versus

traditional platforms to report corruption in public procurement. Moreover, e-whistleblowing platforms are in their infancy in Thailand. There has been no direct and firm evidence to confirm its effectiveness in facilitating the whistleblowing and investigation of corruption. Therefore, in addition to e-bidding, this study examines the effectiveness of e-whistleblowing platforms in detecting corruption in public procurement. The two focused anti-corruption strategies in this study are summarised in Figure 1-2 below.

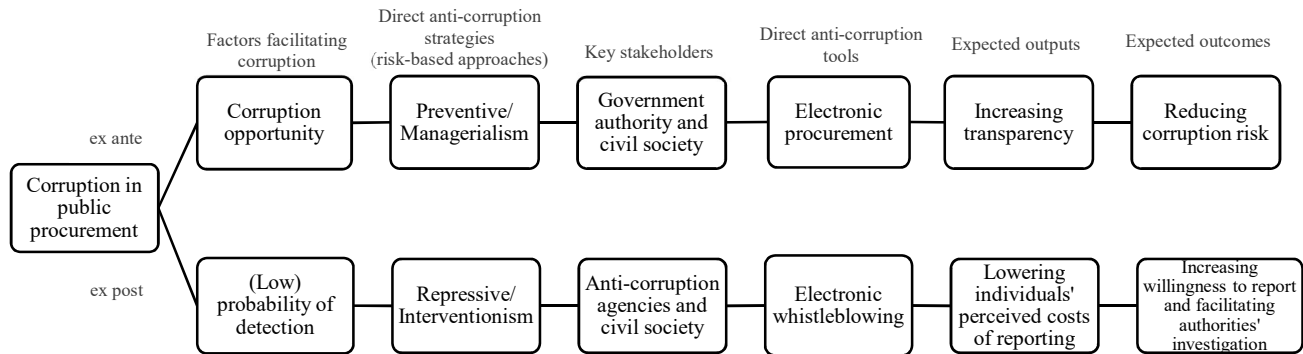


Figure 1-2: Anti-Corruption Strategies in Public Procurement in Thailand

However, an increasing number of scholars has argued that the phenomenon of corruption in a society where corrupt practices are widespread should not be regarded as a principal-agent problem, but a collective action problem (Tirole, 1993; 1996, Mungiu-Pippidi, 2006; Rothstein, 2011; Carson and Prado, 2016). The collective action approaches assume that perceived or actual behaviour of other people in a society influences individuals' decision to participate in or abstain from corrupt practices (Marquette and Peiffer, 2015). In a country where corruption is rife, it is more likely that individuals rationally engage in corrupt activities because they believe that the others will do so too (Tirole, 1993; Rothstein, 2011). Despite the use of new direct anti-corruption initiatives, corrupt people will eventually find a way to bend the rules and overcome the mechanisms. Therefore, the use of principal-agent approaches or risk-based approaches to corruption problems seems not to have a positive effect.

Collective action theory suggests that the use of direct anti-corruption initiatives in a highly corrupt society requires indirect anti-corruption approaches or institutional pre-conditions to prevent society to slide back into systemic corruption. In particular, to effectively control corruption, direct anti-corruption interventions should not be used in isolation. Genuine rule of law including legal punishment and strong civil society that has capacity to change people's

levels of distrust must exist and be a high priority task of governments (Johnston, 2002a; Mungiu-Pippidi, 2006).

In sum, this study evaluates the effectiveness of electronic anti-corruption interventions inspired by principal-agent theory in the fight against corruption in public procurement in Thailand. The study aims to find out that ‘whether risk-based anti-corruption approaches work well in a country where collective action problems exist’. Based on previous studies, there is no concrete evidence that e-procurement systems and e-whistleblowing platforms are effective tools in curbing corruption in public procurement. Moreover, in Thailand, the two mechanisms are still in their infancy. The strategies have achieved little in practice and it is difficult to confirm that conducting procurement online and providing e-whistleblowing channels do fully benefit the government in controlling corruption. Therefore, two research questions of this study are as follows:

- (i) Does e-bidding reduce the risk of corruption in public procurement?
- (ii) Are e-whistleblowing platforms effective anti-corruption tools in detecting corruption in public procurement?

According to McCusker (2006: 8), in order to develop an effective anti-corruption approach, it is necessary to be aware of and understand basic characteristics and nature of corruption. Importantly, theories of what cause corruption have to be defined in terms of real and/or likely human behaviour, social and economic forces, and interaction contexts (McCusker 2006: 8). Even though e-bidding has capacity to reduce the risk of corruption and e-whistleblowing platforms has capacity to increase a chance of corruption detection, the two principal-agent based anti-corruption mechanisms are used in Thailand, a country with relatively high levels of corruption. Hence, this study proposes two hypotheses as follows:

- (i) A managerialist hypothesis: e-bidding does not reduce the risk of corruption in public procurement.
- (ii) An interventionist hypothesis: e-whistleblowing platforms are not effective anti-corruption tools in detecting corruption in public procurement.

1.3 Research Design

This study uses the mixed methods case study that integrates quantitative and qualitative data collections in order to answer the two research questions. The use of such methods is based on

the research questions and the nature of the required information in this study. More details will be presented in Chapter 5 (research methodology) and the relevant chapters.

1.3.1 Qualitative Methods

Semi-structured and in-depth interviews has been employed to collect original qualitative data in this study. The objective of using the methods is to gain more detailed information about the effectiveness of e-bidding and e-whistleblowing platforms. To ensure the validity and reliability of the data collected, the findings are based on the insiders' knowledge and experience rather than the attitudes of private citizens or experts from other fields. The target research participants are as follows:

- (i) Procuring officers across Thai government departments who have knowledge and experience in purchasing activities through different procurement systems especially e-bidding and e-auction.
- (ii) Public authorities in Thai public anti-corruption agencies who are responsible for handling complaints made against public officials and developing different whistleblowing platforms including 'online reporting channels' such as Web-based reporting systems, mobile websites, mobile applications, and social media platforms; and 'traditional reporting channels' such as walk-in services, letters, and hotlines.

As this study is related to a sensitive issue, snowball sampling, a non-probability sampling method, is used to gain access to the target population and increase the number of research participants.

1.3.2 Quantitative Methods

Quantitative data in this study has been collected from official websites and by direct request to the relevant government agencies in Thailand. The quantitative methods are used to validate the qualitative findings.

According to Fazekas and Kocsis (2015), the available corruption indices are mostly unreliable as measures of grand corruption in public procurement. For instance, the Transparency International's Corruption Perception Index (CPI) and the World Bank's Control of Corruption Index (CC), the two most widely used surveys, measure levels of corruption based on attitudes, perceptions, or experience of a group of people/organisations who may not have direct

experience of grand corruption in public procurement (Fazekas and Kocsis, 2015). As a result, such indices are likely to better reflect the perceived level of everyday corruption rather than grand corruption in government procurement.

In this study, the Corruption Research Center Budapest's Corruption Risk Index (CRI) developed by Fazekas et al. (2013a, 2013b, 2013c) is adapted in examining e-auction and e-bidding. The CRI is based on the indicators of institutionalised grand corruption in public procurement that measures 'the risk of corruption' (rather than corruption per se) in the context that corrupt practices can proceed in several ways to 'avoid competition' so that pre-selected bidders repeatedly win government contracts (Fazekas and Kocsis, 2015: 4).

The CRI can objectively and inclusively assess the risk of corruption in three different stages of procurement: the submission stage (single received bid), the evaluation stage (single valid bid), and overall (a winner's market share). As there are a number of independent variables/factors of which we might be unaware, using indicators that capture competition (dependent factors) better identifies the risk of corruption during each stage of public procurement.

In addition, key statistics i.e. corruption reporting recorded by the following three main public anti-corruption agencies in Thailand are used to support the qualitative findings of e-whistleblowing analysis.

- The Office of the National Anti-Corruption Commission (NACC)
- The Office of the Public Sector Anti-Corruption Commission (PACC)
- The Office of the Auditor General of Thailand (OAG)

This study covers only the use of e-bidding and e-whistleblowing platforms in Thailand in a limited time period. For e-procurement systems, e-bidding has been used in Thailand since 16 February 2015. The quantitative data (i.e. public procurement contracts) are manually extracted as there is no ready-to-use data available. Therefore, this study covers contracts awarded by 160 pilot government agencies across 21 government ministries between 16 February 2015 and 15 February 2016 and contracts auctioned through e-auction during the preceding year i.e. from 16 February 2014 to 15 February 2015. For e-whistleblowing platforms, the quantitative data used covers the number of corruption cases reported to the key public anti-corruption agencies in Thailand from 2014 to 2016.

1.4 Key Findings and Contributions

Overall, the findings in this study support the managerialist and interventionist hypotheses. E-bidding and e-whistleblowing, the two direct anti-corruption initiatives based on principal-agent theory, are less effective in the fight against corruption in Thailand where corruption is rife. The use of ICTs in anti-corruption efforts in Thailand can reduce the risk of corruption and detect corrupt practices in public procurement only to a limited extent. Although the electronic mechanisms may be useful to enhance public procurement and whistleblowing procedures, the benefits of ICTs over the traditional systems/platforms seem less effective in preventing corruption and facilitating whistleblowing and corruption investigations.

1.4.1 E-procurement

The study of e-procurement fills a gap in empirical studies by measuring corruption risk at different stages during the bidding phase of e-procurement. The findings add to the literature on anti-corruption by clarifying whether and to what extent transparency and other supposed advantages of online systems over the offline/former systems remove opportunity for corruption or reduce corruption risk in public procurement. In particular, the study has three key findings: (i) e-bidding in the first year of its operation reduces the risk of corruption less than e-auction, (ii) even though e-bidding performs better over time, (iii) corruption is still possible regardless of procurement methods.

Firstly, *e-bidding does not reduce the risk of corruption relative to e-auctions*. The process of e-bidding is designed to increase transparency by removing face-to-face interaction among the potential bidders and procuring officers, help lower the costs of bidder participation, and increase the chance of corrupt practices being detected. While most of interview respondents strongly believed that e-bidding has the capacity to prevent corruption and can reduce the risk of corruption more than e-auction, some interviewees identified how collusion can occur in e-bidding. The latter signifies that e-bidding cannot prevent corruption which is in accordance with the quantitative results. Based on the regression outcomes, firms bidding for e-bidding contracts gained higher market shares on average than firms bidding for e-auction contracts. This implies that e-bidding (in the first year of its operation) reduces the risk of corruption less than the previous mixed online and offline system of e-auctions.

Some respondents stated that adjusting to a new procurement system takes time for users including the procuring officers and potential bidders. This may negatively affect competition in e-bidding which increases the risk of corruption, especially during the earlier period of the use of e-bidding. Therefore, e-bidding should lower the risk of corruption when the system falls into place. The quantitative results are in line with the qualitative findings which suggest that *e-bidding has made some positive progress in reducing the risk of corruption over time*. The quantitative results show that e-bidding reduced the number of single received bid contracts, reduced the number of single valid bid contracts, and lowered the winning firm's market share within the procuring agency's contracts over time in the first year of its operation.

However, this study found that e-bidding or e-procurement systems in general have limitations, thus *corruption is still possible regardless of the procurement methods*. Even though the implementation of ICTs in procurement systems can increase transparency, factors such as the ability of potential bidding firms to operate in a digital economy, the limited number of suppliers in the market, and importantly, the attempt of corrupt people to overcome the systems (e.g., the possibility of information leakage or system hacking and a new form of corruption) can result in limited competition which consequently increases the risk of corruption.

1.4.2 E-whistleblowing

The study of e-whistleblowing platform fills a gap of the lack of empirical studies by combining digital technology and whistleblowing in public procurement. The findings add to the literature on anti-corruption by showing the extent to which the use of online reporting platforms, by overcoming barriers to reporting via traditional platforms, (i) encourage potential whistleblowers to report corrupt activities and (ii) facilitate the authorities' investigations.

The findings reveal three key outcomes of the use of e-whistleblowing in detecting corruption in public procurement: (i) it is rare that e-whistleblowing can prevent and detect corruption, (ii) the advantages of online reporting platforms may facilitate whistleblowing, but the online reports mostly do not support corruption detection, and (iii) the barriers to corruption reporting via traditional platforms and the potential risk of being a whistleblower could not be overcome by the advantages of e-whistleblowing platforms. Overall, compared to the use of traditional whistleblowing platforms, the use of e-whistleblowing is less effective in detecting corruption.

Firstly, *it is rare that e-whistleblowing platforms increase the willingness to report and facilitate corruption detection.* This study found that the key advantages of ICTs such as convenience, speed, cost savings, and anonymity are likely to lower the individuals' perceived cost of being a whistleblower. Thus, the mechanisms facilitate quality tip-offs reporting. Even though this helps prevent and detect corruption which increases government budget savings, in practice this rarely occurs.

Secondly, *e-whistleblowing platforms increase the likelihood of reporting but the reports seem not to support the investigators' tasks.* Some whistleblowers take advantage of digital technology in an inappropriate way such as discrediting competitors or colleagues. In such cases, the use of e-whistleblowing increases poor quality reports and thus it is less likely to increase the chance of corrupt practices being detected.

Moreover, the findings indicate that overall *e-whistleblowing does not increase potential whistleblowers' willingness to send tip-offs which consequently do not facilitate corruption detection.* Poor functions of online platforms, limitations of potential whistleblowers' ICT skills, limitations of ICT access and ICT device usage in rural areas, and importantly, security concerns are identified as the key factors that increase the perceived cost of online whistleblowing. Therefore, traditional platforms such as letter, telephone, and walk-in services have been the main channels used by most whistleblowers in Thailand thus far. In addition, corruption cases reported via traditional whistleblowing platforms are more helpful for further investigations than the online channels.

In sum, the findings of this study are in line with collective action theory. The findings imply that collective action problems seem to be a big challenge for governments in a less developing country to effectively and efficiently use direct anti-corruption interventions in isolation. The countries where corruption is widespread need strong political will and reform to enable civil society to play an effective part in the fight against corruption.

However, it is expected that this study might benefit researchers who are working in the anti-corruption fields by providing strong and reliable evidence for and against the anti-corruption theories. In addition, the findings may have substantial benefits to policy makers, citizens, businesses, and other key stakeholders in public procurement in other developing countries.

1.5 Structure of the Rest of the Thesis

This study comprises nine chapters. Chapter 2 reviews the widely known literature on corruption and anti-corruption interventions. Firstly, the chapter presents definitions and types of corruption. Then, two key corruption theories: a principal-agent theory and a collective action theory are highlighted as the occurrence of corruption. In addition, the chapter reviews managerialism and interventionism as the principal-agent anti-corruption approach and ‘genuine rule of law’ as the collective action approach to corruption.

Chapter 3 focuses on the context of Thailand and explains why the country was selected as a case study in this research. As this study aims to find out that whether or not direct anti-corruption interventions based on principal-agent theory work well in a society where corruption is systemic, the chapter presents the Thai political, economic, and socio-cultural contexts which contribute to collective action problems.

Chapter 4 then presents e-government initiatives for tackling public procurement corruption. Corruption in public procurement and two anti-corruption interventions based on principal-agent theory i.e. e-procurement systems and e-whistleblowing platforms are reviewed. The chapter presents research gaps, research questions, theoretical framework, and hypotheses of this study.

Chapter 5 describes the research methodology used to examine the effectiveness of e-procurement systems and e-whistleblowing platforms. The chapter presents a mixed method approach that integrates qualitative and quantitative analyses: research designs as well as the data collection and data analysis methods used. More specific methods for both analyses and the limitations of the research will be presented in each relevant analysis chapter.

Chapter 6 introduces the study of e-procurement systems in Thailand based on qualitative evidence. The chapter presents the analysis of the effectiveness of e-bidding in reducing the risk of corruption compared with e-auction. The data comes from interviews with 31 Thai public officials, across all ministries in the country, who have knowledge and experience of e-procurement systems.

Chapter 7 then deploys a quantitative analysis of e-auction and e-bidding to test the hypotheses and verify the qualitative findings that e-bidding reduces the risk of corruption less than e-auctions and that e-bidding does not reduce the risk of corruption over time. The hypotheses are

tested using binary logistic regression and linear regression models based on a Thai public procurement database built by the author to analyse 6,738 e-auction and e-bidding contracts.

Chapter 8 presents the analysis of e-whistleblowing platforms. The chapter reveals how e-whistleblowing platforms are used by the whistleblowers and how e-whistleblowing facilitates the authorities' investigations compared to the traditional platforms. The data comes from interviews with 16 public officials in 12 public anti-corruption agencies, and statistics on corruption reporting from the records of the main three public anti-corruption organisations in Thailand.

Chapter 9, the final chapter, draws together and reflects on the overall findings of the effectiveness of e-procurement and e-whistleblowing in developing and strengthening public procurement. The chapter summarises the major findings and provides an answer to the two research questions in brief. The chapter then generalises the key findings to other developing countries where corruption is systemic. Limitations and future research directions are included at the end of the chapter.

Chapter 2 Theories of Corruption and Anti-corruption Interventions

2.1 Introduction

This chapter presents the theoretical literature which focuses on widely known and accepted assumptions held about causes of corruption and anti-corruption strategies. The chapter is divided into five sections. Following this introduction, definitions and types of corruption are described in Section Two and Section Three, respectively. The fourth section highlights two key theories of corruption: a principal-agent approach and a collective action approach. In this section, the occurrence of corruption and anti-corruption interventions based on these two approaches are discussed. On the one hand, managerialism and interventionism are reviewed as the anti-corruption strategies based on principal-agent approach. On the other hand, genuine rule of law is regarded as the institutional pre-condition for effective implementation of anti-corruption interventions guided by collective action approach. The last section concludes the chapter.

2.2 Definitions of Corruption

Corruption is a universal phenomenon, but it is not an easy task to precisely identify what it is. This might be due to the fact that people in different places perceive and understand the term differently. Even though it is generally defined as the abuse of public power for private gain (Girling, 1997: vii; World Bank, 1997: 8; Rose-Ackerman, 1999: 91), in fact, how the concept is defined and explained depends on several factors such as norms, laws and formal regulations, culture, ideology, consensus, or other contexts.

Johnston (1996) categorises definitions of corruption into two main groups which are 'behaviour-focused definitions' and 'principal-agent-client definitions'. The former is likely to define 'what' the term corruption means, which will be analysed in this section. The latter is likely to describe 'how' corruption takes place, which will be discussed later in this chapter. The classification not only provides an overview of corruption which is a complex social, economic, and political phenomenon, but also helps us to distinguish and see corruption from various viewpoints.

The term corruption in behaviour-focused definitions is described as "the abuse of public office, power, or resources for private benefit" (Johnston, 1996: 322). However, there is no single or

universal standard that can clarify the sub-terms of corruption i.e. abuse, public, private, and benefit (Johnston 1996: 322; Philp, 1997: 441). The corruption definitions in this category, therefore, refer to particular actions that are measured against 'objective standards' which are laws or formal regulations or the public interest and 'subjective standards' which rely on culture or public opinion (Johnston, 1996: 322).

In contemporary social science, most objective definitions of corruption are classified into the three categories of Heidenheimer's corruption: public office-centered, market-centered, and public interest-centered (Johnston, 1996: 323; Philp, 1997: 440; Johnston, 2002b: 18; Heidenheimer and Johnston, 2002: 7).

Firstly, 'the public-office-centered approach' is the concept that most social scientists refer to which focuses on public officials' duties (Heidenheimer and Johnston, 2002: 7). The concept can be illustrated in the work of Nye (1967: 419) who defines corruption as

"Behavior which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) pecuniary or status gains; or violates rules against the exercise of certain types of private regarding influence".

A problem occurs as Nye's definition might not be clear for people in different societies, for example, it contains normative bias. Quah (2011: 9) argues that in countries where corrupt activities are practiced by majority of people, such actions are unlikely to be deviant because people perceive it as a part of their everyday life. On the other hand, incorrupt behaviour is considered as a deviation if practiced by minority groups in that society (Quah, 2011: 9). This means that the same action could be defined as corrupt in one society but not somewhere else, depending on where the action takes places or the attitude of people in those particular societies.

Secondly, 'the market-centered approach' developed by another smaller group of social scientists (Heidenheimer and Johnston, 2002: 7) defines corruption as revolving around economic theory (Kobayashi, 2006: 6) concerning the exchange of goods and services and the law of demand and supply (Heidenheimer and Johnston, 2002: 7). In this concept, Van Klaveren describes the market-centered idea as:

"A corrupt civil servant who regards his public office as a business, the income of which he will...seek to maximize. The office then becomes a "maximizing unit." The size of his income depends ... upon the market situation and his talents for finding the point of maximal gain on the public's demand curve" (Quah, 2011: 9).

According to Philp (1997: 444), in Van Klaveren's point of view, the occurrence of corruption is likely to depend on the development of a system where principles-based regulation provides public officials and a middleman with *an opportunity* to use available public resources for their private gain. In this regard, Philp (1997: 444) states that what identifies a particular action as corrupt is not because it is just that public officials maximise their income, but that such actions occur in a context that has been identified as corrupt. Thus, Van Klaveren's market-centered concept is less likely to define what corruption is, rather, it provides a way to understand the occurrence of corruption (Philp, 1997: 444).

In addition, the public officials' income in the market-centered approach refers to only the tangible gains and ignores the intangible ones such as prestige and political support that officials can also obtain from the misuse of their power (Johnston, 1996: 323). Such received benefits, however, can be regarded as corrupt in other contexts.

Thirdly, 'the public interest-centered approach' describes corruption in a broader view in which the focus is on the threat to public interest (Heidenheimer and Johnston, 2002: 7). The definition of corruption in this category is defined by Carl Friedrich as follows:

"The pattern of corruption can be said to exist whenever a powerholder who is charged with doing certain things, i.e., who is a responsible functionary or officeholder, is by monetary or other rewards not legally provided for, induced to take actions which favour whoever provides the rewards and thereby does damage to the public and its interest" (Quah, 2011: 10).

According to Gardiner (2002: 31-32), the public interest-focused definition seems to place emphasis on the consequences of an action rather than on its legality. Gardiner posits that the definition implies that if an action harms the public interest, such action is corrupt although it is legal. On the other hand, if it is advantageous to the public, it is not corrupt even though it is prohibited by law. Moreover, one distinct restriction of this approach is that it is difficult to identify whose judgment of the public's interest is to be used as standard (Heidenheimer et al., 1989: 11).

Therefore, it is more likely that all three concepts face some limitations in representing a universal concept. Among the three, the public office-centered and the public interest-centered definitions seem to define corruption in a more contestable context compared to the market-centered as the two former are based on normative judgments which measure the scope of public

office or the nature of public interest (Heidenheimer et al., 1989: 11; Heywood, 1997: 422). However, the market approach also deals with the same problem as there are some situations where the rules applicable for businesspersons and the rules applied to public officials are differentiated by an authority or there are particular characteristics that distinguish between a black market and free market (Heidenheimer et al., 1989: 11).

In addition, Philp (1997: 441) states that it is not easy to specify the proper boundary for describing public office and public interest as well as it is not clear which norms should be employed as standards since there are a number of norms in one society which might be different from one another such as local norms, elite norms, etc. Moodie (1980: 212) also claims that the roles of public officials are complex so that it is less likely to clearly identify the behavioural definitions. Public officials do have "room to manoeuvre" (Moodie, 1980: 212). Their legitimate discretion and faulty control or lax supervision provide a number of ways to exploit their positions of authority which depends on several factors such as the nature of government, the check on government power, the openness of government activities, and the scope of jurisdiction provisions, etc. (Moodie, 1980: 212-213). Furthermore, the lack of a clear and precise definition of the public role and the content are identified in the ambiguity of language as factors that blur the concept of corruption (Moodie, 1980: 213).

Other than the public roles, it is more likely that the specific terms used in describing corruption under the behaviour-focused approach, i.e. abuse, public resource, or private benefit, do not result in agreement on a universal definition (Johnston, 1996: 324). In this respect, Moodie (1980: 213) proposes that "there must therefore, finally, be evidence that any particular lapse was for the reasons, with the purposes, or under the circumstances that put it under the sub-heading of a corrupt lapse".

According to Lowenstein (1989: 33), James C. Scott proposes that public opinion and legal norms are the two possible sources of standards to determine whether an action is or is not corrupt. Scott, however, rejects the first option as he sees some difficulties in selecting the public whose opinion is to be the final judgment. On the other hand, Scott supports formal norms of public official conduct because legal norms are "operational, precise, consistent, or generally clear-cut" (Lowenstein, 1989: 33). In addition, Heywood (1997: 422) states that illegality is the key aspect in judging whether or not arguments are corrupt and that disputes in the political corruption context can only be judged against legal norms. However, even an action judged by laws or legal principles still raises some difficulties.

Firstly, Johnston (1996: 323) points out that the public office-centered approach is one of comparative precision but problems can arise if the law is obscure. Ambiguity is an integral part of politics for public officials in operating their administrative duties and for politicians in conducting their political tasks in ways that even an action not prohibited by law, may well not comply with the public sense of the appropriateness of public officials' duty (Philp, 1997: 411). For example, if the law does not cover cases of less serious officials' malpractices, it does not mean that such action will be acceptable.

Secondly, the state laws are more likely to define and focus on subsets of corruption such as bribery, fraud, or electoral misconduct instead of 'political corruption' (Philp, 1997: 411) which is more complex than the subset ones. (Political corruption will be discussed later). Damagingly, it is not only that the law might not cover actions that are widely perceived as corrupt practices, but the law can also be enacted from corrupt actions (Philp, 1997: 411). Hence, what is legal is not always ethical (Gardiner, 2002: 30).

On the other hand, the term corruption can cover moral meanings that might be different from laws and regulations (Johnston, 1996: 323). In this context, what is illegal, however, is not always immoral. Rose-Ackerman (1978: 9) illustrates that "One does not condemn a Jew for bribing his way out of a concentration camp". Paying a bribe in some situations, therefore, may be morally permissible (Rose-Ackerman, 1978: 9). However, it might make more sense considering that such a case is less likely to be corrupt because it is not only moral but seems not to harm the public interest. In addition, differences in laws or legal systems in different countries make particular actions in those countries difficult to compare (Gardiner, 2002: 30).

Moreover, the content of the law can be influenced by a wealthy and powerful group of people in business or politics who can legalise their activities by passing laws that exempt or protect themselves from political corruption laws (Heidenheimer et al., 1989: 33). Furthermore, laws can be changed which make an accepted action come to be prohibited overtime (Johnston, 1996: 323). This situation is called "proto-corruption" in which a specific behaviour becomes officially classified as corruption (Johnston, 1996: 323). In contrast, political changes can also make it the other way round in which what was defined as corrupt becomes legal.

Therefore, the above arguments show that laws may be vague, unable to cover all misconduct, less ethical, less likely to be comparable across different societies, influenced by privileged people, or constantly changing. For the last argument, we have to consider that the reluctance

to update outdated laws can also create opportunities for corrupt practices. Nevertheless, it seems that laws are more supported as the usable standards compared to social norms and the public interest. This might be due to the fact that laws are set by governments and apply to all members of a society or to all situations while it is less likely that social norms always apply equally to everyone in a society or that one's public interest can represent everyone's interest.

However, it does not necessarily mean that we should entirely ignore social norms and the public interests. Philp (1997: 445) notes that not all cases of public officials' income maximisation are corrupt. In order to judge those cases, we have to prove or identify what it is that makes the case distinguishable as corrupt rather than non-corrupt. In this context, formal regulation could be applied. However, Philp (1997: 445) adds that whether or not the cases are also judged as politically corrupt, we have to consider the structures of public office and the public interest which is based on values or normative constraints underlying politically corrupt acts on such income maximisation. Nevertheless, the market model should not be excluded from analysing corruption as the model can signify the conditions in which public officials will break those normative constraints and help us to see how corruption occurs (Philp, 1997: 445) as discussed earlier in the market-focused definitions.

In addition to objective definitions, another group of scholars argues that the term public interest is too unclear to use as the standard for laws (Johnston, 1996: 322). Culture or public opinion, therefore, are proposed as an element in defining corruption in terms of how much and why corruption is significant to citizens or elites (Johnston, 1996: 322). Moreover, it appears that subjective definitions serve as a caveat to the legal-based definitions (Johnston, 1996: 323).

Heidenheimer introduces a tripartite classification of corruption into the three color-coded groups as black, white, or grey (Johnson and Sharma, 2004: 2; Werner, 2009: 211). In this typology, Heidenheimer considers social influence and classifies corruption based on common and different perceptions between citizens and public officials or the degree of these two groups' tolerance toward corrupt practices in their society (Johnson and Sharma, 2004: 2; Werner, 2009: 211).

For Heidenheimer, black corruption is corrupt activities that a majority of people and elites strongly condemn and want punished while white corruption is signified as corrupt practices that are acceptable, tolerated, and condoned by both groups (Johnson and Sharma, 2004: 2;

Werner, 2009: 211). Corrupt behaviour with which both groups express a different opinion or in which they might be struggling with ambivalence are classified as grey corruption.

Vargas-Hernandez (2010: 136) claims that the characteristics of black, white, and grey corruption can be found in modern democratic states, patron-client society, and countries in transition to a more democratic political regime, respectively. Johnston (2005: 6) points out that the perception of what is corruption and what is not as well as the degree of tolerance to corrupt practices possibly changes in a short period of time. For example, in modern societies, the media can play an important role in changing people's attitudes in which black and white corruption become perceived as grey corruption (Poeschl and Ribeiro, 2015: 59).

As far as the perspective or judgment of people in societies is concerned in subjective definitions, we might consider that bias and the different attitudes of people even in the same society are more likely to be unavoidable. Philp (1997: 411) points out that relying on public opinion in determining the meaning of corruption is fraught with problems. He posits that within a society there are varied opinions of people from different classes, ethnic groups, and subgroups of the community in which it is not easy to select whose opinion should be used as standard. Importantly, depending on public opinion implies that we risk neglecting the fact that people may not recognise or be aware of a particular set of social norms and public interest concepts. Therefore, subjective definitions also have some difficulties in generating a general definition of corruption (Johnston, 1996: 323).

Considering that the meaning of corruption can differ from era to era, place to place, and across cultures, the normative judgment of the elite, for example, should be used as criteria in determining corruption (Heidenheimer et al., 1989: 11-12). According to Heidenheimer et al., 1989: 11-12), "Where the best opinion and morality of the time, examining the intent and setting of an act, judge it to represent a sacrifice of public for private benefit, then it must be held to be corrupt". This might offset some disadvantages of depending entirely on the laws as standards or public opinions, but this option may raise questions such as how fair, efficient, and effective is the elite's decision making process.

In conclusion, it is likely that there is no universal standard to characterise the definition of corruption. The most widely used meaning of corruption which is the misuse of public office for private gain is concise, however, rather broad. The typologies of corruption based on either objective or subjective standards guide that in real life, corruption is multifaceted, dynamic,

ever-changing, and applies to more complex structures in which a similar action can be defined differently by different people across societies. Not surprisingly, the definition of the term can be understood and interpreted differently in different cultural contexts. Importantly, it might be true as Johnston (1996: 325) states that even where formal regulations or an agreement on public norms exist, considerable grey areas can still be found in the definition of corruption. In addition, corruption can take many forms which include a number of different activities. The next section will discuss the three significant types of corruption.

2.3 Types of Corruption

According to Goudie and Stasavage (1997: 11), corruption can be differentiated into three main types: bureaucratic or administrative corruption, economic corruption, and political corruption. Firstly, ‘administrative or bureaucratic corruption’ refers to public officials misusing their public office for monetary benefits (Goudie and Stasavage 1997: 11). As it places emphasis on the action of public officials, not on the public interest, bureaucratic corruption is more likely to link with the public office-centered approach as mentioned earlier.

According to Rose-Ackerman (1978) and Tanzi (1994: 4), bureaucratic corruption involves low-level officials who possess power in making decisions and dealing directly with clients of state agencies, but such power does not relate to political changes in a country. This type of corruption is also called petty corruption as it usually involves a small amount of money or bribe during the interaction between civil servants and citizens (Poeschl and Ribeiro, 2015: 59). According to the World Bank (1997), the aggregate impact of petty corruption could be much greater than the word “petty” implies, however.

Rose-Ackerman (1978: 61) suggests two possible methods of bureaucratic corruption that might and might not affect the marginal budgetary cost of a government agency's service. The first would involve a state procurement where a client of government agency who acts as a supplier paid a kickback or a bribe to a bureaucrat in return for state purchases of his or her goods or services. This, however, can raise the marginal budgetary cost of the agency because the bribe paid was included or added into the contract price (Rose-Ackerman, 1978: 61).

The second case, on the other hand, occurs in the distribution of state outputs in which the bribes paid to officials were not a part of a governmental budget but decreased the clients' revenues instead (Rose-Ackerman, 1978: 62). For example, the amount of bribe depends on the speed of

the ability to providing services to the clients who act as demanders in which the corrupt officials may perform work better than their honest colleagues in terms of quantity or efficiency (Rose-Ackerman, 1978: 62). These actions are more likely to be found in daily corrupt interaction between low or mid-level public bureaucrats and citizens who are accessing basic public services such as educations, hospitals, or police departments.

Moreover, when considering the term 'misuse' as committed by public officials, it is found that there are several different actions that revolve around the bureaucratic corruption concept and such actions are labeled with specific terms. For example, a public officials' act of taking of unauthorised public money or funds for personal enrichments is 'embezzlement' (Gardiner, 2002: 28). "The unjustified appointment of friends or relatives to public office, or according them favoured treatment" is called 'nepotism' (Heywood, 1997: 426). A situation that sees individuals providing goods or services to officials while expecting a favour in return is a description of 'investive corruption' (Heywood, 1997: 426). Public officials using insider knowledge and connections to obtain benefits in taking a part-time job as a consultant for private firms is an example of 'bureaucratic conflict of interest' (Gardiner, 2002: 27).

In addition, when officials force a person to pay bribes to avoid being harmed this is labeled 'extortion' (Heywood 1997: 425-426), while a case where the client is not forced but willing to pay bribes in order to avoid the agency's services is called 'defensive corruption' (Rose-Ackerman, 1978: 62; Heywood 1997: 426). Rose-Ackerman (1978: 62) states that defensive corruption can occur when the client tries to avoid government's or police's sanction in his or her businesses. Importantly, both defensive and extortive corruption can cause a more serious problem as bribe-payers can keep illegal practices hidden from the public (Rose-Ackerman, 1978: 62).

In addition, according to Goudie and Stasavage (1997: 11), one possible definition of corruption in the economic context or 'economic corruption' is that defined by Shleifer and Vishny (1993): "the sale by government officials of government property for personal gain" in which Goudie and Stasavage identify as "the direct financial benefit accruing to government officials or politicians". In this context, it relates to the market-centered definitions of corruption that emphasises how corrupt public officials illegitimately use their office or public resources to maximise their income.

Butler (2012: 22) states that economics deals with how people selectively spend available resources in order to obtain other things that are of worth for them. As public officials and politicians are detailed to serve the interests of the majority or their supporters, they are in positions where they can either allocate public resource to satisfy the needs of the majority or the ones who vote for them or illegitimately allocate such resources to the private sector in exchange for personal monetary gain, i.e. bribes. The latter, however, is considered as corrupt according to political economists' perspectives.

Johnson and Sharma (2004: 3) raise the issue that while those occupying public roles receive bribes for performing their public duty, and this is more likely to be corrupt according to the corruption definition in general, such actions, however, may be not considered as corrupt in the particular political economic context. Goudie and Stasavage (1997: 11) compare two examples. They contend that most people would consider a situation whereby custom officials request a bribe in exchange for the entry of illegal products as corrupt. On the other hand, politicians making a decision whether or not to adjust the value of their country's currency, depending on whether it will benefit their political supporters, might not be perceived as corrupt.

For the latter case, Goudie and Stasavage (1997: 11) refer to the political economy context where public officials generally are expected to use public office in a way that does not serve the public interest but politically benefits their own interests instead. Such interests, however, do not mean their own personal self-benefit but Johnson and Sharma (2004: 3) state that it could be their party's or constituency's interests. According to Cappella and Jamieson (1997: 20), public officials or politicians are elected because they are expected by the constituents or the citizens who voted for them to satisfy their needs. Hence, re-election will be secured if the constituents perceive that the elected politicians who act as their representatives can fulfil their requirements (Cappella and Jamieson, 1997: 20).

Johnson and Sharma (2004: 4) consider that why using public office not for personal monetary but for political gain is not considered as corrupt in political economists' perspectives. In addition, in the views of Goudie and Stasavage (1997: 11), the definition provided by Shleifer and Vishny can be used to distinguish corruption from the political patronage system or favouritism that aims to generate electoral support. Moreover, in the economic context, personal gain refers to bribery, rather than patronage, nepotism, or clientelism (Kajsiu 2014: 19).

Lastly, according to Heywood (1997: 422), it is difficult to specify a 'political corruption' definition that is generalisable and uncontested. This is because the definition may vary in relation to the nature of the political system in a particular society. For example, a form of political corruption in a democratic country is likely to differ from a non-democratic country. However, Philp (2002: 42, 51) analyses the characteristics of political corruption. He suggests that political corruption is more likely to be incontestable and includes distinct criteria such as of a public official intentionally violating the trust placed in him or her by the public, breaking the rules and the standards of public office conduct within the political culture, and exploiting the office in a way that harms the public interest in the search for personal gain, and benefitting a third party in accessing goods or services. Based on Philp's analysis, political corruption is most relevant to the public interest-focused definitions that the public interest is one of the significant concepts in identifying corruption.

According to Amundsen (2006: 5), political corruption, which is sometimes called grand corruption, comprises two processes. Firstly, the key actors such as politicians, ministers, and senior public officials illegitimately use their positions of authority in making and enforcing laws on behalf of citizens to extract public resources for individual or collective enrichment (Amundsen, 2006: 5). Importantly, such extraction usually happens in the context of bribe solicitation by the key persons involved in activities such as government procurement, taxation, and privatisation processes (Amundsen, 2006: 4). However, if politicians or public officials in charge of operating or managing such activities receive a bribe from the private sector in the form of monetary benefits, it will be considered economic corruption as well.

The other process in political corruption is that of high-level politicians who abuse public resources or money to sustain and expand their power (Amundsen, 2006: 4). In order to gain political support and loyalty such as to secure a parliamentary majority, earn the funds, prevent investigations, and gain exemption from punishment, the politicians' misconduct usually involves political patronage and favoritism (Amundsen, 2006: 4). In this context, it is not considered economic corruption, however.

According to Dahlström (2015: 111), petty corruption or administrative corruption generally involves bureaucrats or low and mid-level public officials rather than politicians. However, Andvig et al. (2001: 11) state that administrative corruption is related to political corruption and the two mutually reinforce each other and that the latter is supported by the former "in a pyramid of upward extraction". Petty corruption is probably done in a way that systematically benefits

politicians and in which petty and political corruption possibly end up merging at some points (Dahlström, 2015: 111).

Across the three types of corruption, it is more likely that all of them involve the misuse of public power for private benefit and such misconduct could harm the public interests. However, in order to develop an anti-corruption strategy, it is necessary to be aware of and understand the nature of corruption, its basic characteristics, or the conditions that allow them to happen (McCusker, 2006: 8). In this regard, theories of what cause corruption have to be defined in a real and/or likely human behaviour and interaction contexts (McCusker, 2006: 8). The next section will discuss theoretical perspectives on how corruption occurs.

2.4 Theories of Anti-corruption Interventions

Most research to date has highlighted ‘a principal-agent problem’ and ‘a collective action problem’ as the two dominant theoretical approaches to the problem of corruption (Carson and Prado, 2016). The former suggests that individuals rely on their calculations of personal costs and benefits associated with corrupt activities to support decision making on engaging in or opposing corrupt practices (Marquette and Peiffer, 2015). Thus, increasing the costs of participating in corrupt activities and reducing corrupt opportunities are the key areas of focus. On the other hand, the latter assumes that individuals’ trust, perceptions, or experiences of how other people in their society act influence their decisions on whether or not to participate in or oppose corruption (Marquette and Peiffer, 2015). Based on this approach, effective anti-corruption interventions require certain institutional pre-conditions (Johnston, 2002a; Mungiu-Pippidi, 2006). The next section will discuss the two approaches in detail.

2.4.1 A Principal-Agent Approach to Corruption (Agency Theory)

As previously stated, the definitions of corruption categorised by Johnston (1996) are split into ‘behaviour-focused definitions’, which were presented earlier, and ‘principal-agent-client definitions’, which will be discussed in this section. The term corruption in principal-agent-client definitions describes how corruption takes place, based on agency theory. Agency theory is rooted in information economics (Eisenhardt, 1989: 59). The theory addresses the agency relationship in which one or more parties (the principal) select other people (the agent) and delegate some decision-making authorities to that agent to perform works on their behalf (Jensen and Meckling, 1976: 308).

However, there are two main problems in the agency relationship. Firstly, within agency theory, Jensen and Meckling (1976: 308) formalise conflicts of interest in the principal-agent model. They indicate that assuming that the principal and the agent are both "utility maximisers", a conflict of interest therefore is possible when the agent may not act in the principal's best interests (Jensen and Meckling, 1976: 308). Another problem occurs when the principal is not able to monitor whether the agent has performed appropriately (Eisenhardt, 1989: 61) because of information asymmetry. Information asymmetry means that the agent has more information than the principal (Smith and Bertozzi, 1998: 3) or the principal does not have enough information on the agent's activities (Klitgaard, 1988: 70).

Additionally, these two problems raise a moral hazard which refers to the situation where the agents shirk their duties and act in their own interest at the expense of the principal's interests when they realise that the principal is unable to keep track of their actions (Eisenhardt, 1989: 61; McEachern, 2008: 322; Marquette and Peiffer, 2015: 2). In addition, the problems also cause the three types of agency costs (Jensen and Meckling, 1976: 308). Firstly, monitoring costs by the principal will be incurred when the principal investigates or controls the behaviour of the agent (Brink, 2011: xii). Secondly, bonding costs by the agent will occur as the agents have to ensure that they perform in line with the principal's best interests (Brink, 2011: xii). In other words, the agent is liable to compensate the principal if they do not perform their jobs appropriately (Furubotn and Richter, 2005: 389). Thirdly, residual losses will arise from divergence between the principal's and the agent's decisions that reduce the principal's welfare (Furubotn and Richter, 2005: 389).

According to Marquette and Peiffer (2015: 2), corruption is usually defined as a double principal-agent problem. The first problem refers to a situation where a political leader who acts as the principal is unable to monitor the tasks performed by public officials who act as the agent so the principal is unable to hold the agent accountable (Marquette and Peiffer, 2015: 2). Therefore, there is an opportunity for public officials to abuse their discretion over public resources for their private gain (Marquette and Peiffer, 2015: 2).

Another principal-agent problem arises when the agent is either a politician or public official while the principal is a member of the public. Like the first problem, the agent misuses their discretion over public services for their own private benefit and the members of the public cannot monitor and hold them accountable (Rose-Ackerman, 1978; Klitgaard, 1988; Ugur and Dasgupta, 2011). According to Marquette and Peiffer (2015: 2), the latter case is a widespread

problem in many countries regardless of the degree of democracy, government transparency, or legal accountability and enforcement mechanisms. This is because the public cannot observe the public officials' behaviour at all times as well as being unable to keep them universally accountable for their actions (Marquette and Peiffer, 2015: 2).

Rather than focusing on the two parties (i.e. principal and agent), the agency theory refers to the Principal-Agent-Client relationships to explain corrupt activities. The approach focuses on the analysis of the interaction among the three parties who can drive corruption: a head of public agency department who controls public functions or citizens (the principal); a bureaucrat who performs administrative tasks (the agent); and a private person who interacts directly with the agent (the client) (Johnston, 1996: 325). According to Johnston (1996: 325-326), there are two significant forms of principal-agent-client models which are proposed by Rose-Ackerman (1978) and Klitgaard (1988).

Rose-Ackerman (1978: 6-7) presents the principal-agent-client relationships in the win-win-win situations which could occur in the administrative level of state agencies. The principal assigns a particular task to the agent to perform on their behalf, a task for which monitoring the agent is usually expensive, allowing the agent to act in their own best interests, but in a context that does not generate conflict with the principal's objectives (Rose-Ackerman, 1978: 6). The client may pay a bribe to the agent to influence his behaviour or decision and the bribe is not transferred to the principal (Rose-Ackerman, 1978: 6).

However, this action may satisfy the principal as the bribe improves productivity or efficiency of their subordinates or the agent beyond the level achieved by officials receiving regular pay (Rose-Ackerman, 1978: 6-7). This generally happens when a customer gives tips to staff or ordinary citizens give money to low-level public officials (Rose-Ackerman, 1978: 6). For the latter, public officials may have low incentives to carry out their tasks due to their salary or internal monitoring in which bribes received from private individuals count as an "incentive bonus" for them (Rose-Ackerman, 1999: 9).

Rose-Ackerman (1978: 7) states that her model focuses on payments the client transfers to the agent which are not shared with the principal, but which do not create any conflict of interest among the parties nor undermine the principal's objectives. In her perspective, payments that are considered corrupt are only those that are illegal. Hence, it means that bribery is not always corrupt if the action done by the agent is not against the laws or formal regulations.

From this perspective, the actions of the agent seem to oil the wheels of administration, help keep talented people in the civil service, and be unlikely to cause a conflict with the principal. However, such incentive bonuses may create discrimination in accessing public services. People who do not pay a bribe may be treated less fairly than others.

Considering the characteristics of the interaction between the parties in this model, it is more likely to link with bureaucratic corruption as it focuses on public officials who directly deal with ordinary people and use their public office or power for private gain. Johnston (1997: 72) observes that a key feature in this context is 'pervasiveness' which means that corruption is common and can be found throughout the public sector especially when people deal with bureaucrats. According to Johnston (1997: 72), this type of corruption is pervasive because civil servants who serve as bureaucratic or political intermediaries perform their tasks in a way that sustains public dependence on their services. For example, bureaucrats might intentionally create service delays and private individuals who want to avoid such delay are willing to pay bribes (Rose-Ackerman, 1999: 9, 15).

Unlike Rose-Ackerman, Klitgaard (1998: 22, 24) defines corruption in relation to a conflict of interest between the principal and the agent. In his model, a civil servant (the agent) is employed by government officials (the principal) to serve the general public, service users, or citizens (the client) on the behalf of the government officials. According to Zanella (2013: 164), corrupt practices cited in most research (specifically, corruption in public procurement) are based on "the principles of the rational choice perspective". That is individuals' decision on whether or not to participate in corrupt activities depends on the cost-benefit calculation (Klitgaard, 1988). The agent and the client will engage in corrupt activities if such activities seem to outweigh the costs of doing so (Klitgaard, 1988). Corrupt activities will increase when the agents abuse their monopoly power and discretion, there is a lack of accountability, and the client is more likely to pay a bribe when dealing with public services (Klitgaard, 1988).

According to Klitgaard (1988: 69-70), how corruption occurs can be explained through the formula of individual motives to engage in corrupt activities as shown in Figure 2-1 below. He posits the view that individuals will be more likely to corrupt when they think that:

| |
|--|
| $\begin{array}{ccccccc} \text{Corrupt} & & & & \text{(Probability of being} & & \text{Satisfaction} \\ \text{Gain} & - & \text{Moral cost} & - & \text{caught and punished x} & > & \text{Salary} & + & \text{from not being} \\ & & & & \text{penalty for being corrupt)} & & & & \text{corrupt} \end{array}$ |
|--|

Figure 2-1: Klitgaard's Formula of Individuals' Judgments to Engage in Corruption

According to the equation above, public officials have two options and three possible outcomes. On the one hand, if the officials decide not to be corrupt, they will receive their salary as usual and acquire the moral satisfaction from not violating the public trust and not taking advantage of their positions for their own benefits. On the other hand, if they choose to engage in an illegal activity, there are two possible outcomes. Firstly, if they are caught, they will lose their salary and be punished. Secondly, if they can avoid detection, they will receive a corrupt gain and their salary, but pay a moral cost.

However, the second option is subject to several factors such as the amount of bribe compared to their sense of duty or their ethical values (moral cost) (Klitgaard, 1988: 69). For a dishonest person who lives in a corrupt culture, such a moral cost could be zero (Klitgaard, 1988: 69). Therefore, individuals will be more likely to be corrupt when they perceive that the benefits from being corrupt are greater than the benefits they will get from not being corrupt. More importantly, the anti-corruption approach might not work if corruption is considered as almost risk free to perpetrators (Klitgaard, 1988: 69).

A case study of the control of bureaucratic corruption in three Asian countries: Hong Kong, India and Indonesia conducted by Palmier supports Klitgaard's model. The study identifies that (i) the low salary of public officials, (ii) the opportunity for corruption in public agencies, and (iii) the low probability of corruption detection and punishment (policing) are the three significant factors that cause corruption (Quah, 2003). According to Quah (2003), Palmier makes an assumption on bureaucratic corruption that:

“Bureaucratic corruption seems to depend not on any one of the [three] factors identified, but rather on the balance between them. At one extreme, with few opportunities, good salaries, and effective policing, corruption will be minimal; at the other, with many opportunities, poor salaries, and weak policing, it will be considerable”.

More importantly, a comparative study by Quah (2003) about corruption in Indonesia, the Philippines, and Thailand suggests that corruption in Thailand is attributed to the same three factors. Therefore, based on Palmier's assumption, reducing the opportunities for corruption, increasing public officials' salary, and ensuring detection, prosecution, and punishment are considered as key strategies to fight against corruption (Quah, 2003: 238).

Klitgaard (1988: 22, 24, 25) assumes that the principal in his model embodies public interest, and corruption arises when a disloyal agent betrays their principal's interest to solely benefit their own self and the agent's action also causes damage to society and creates "social costs". Klitgaard introduces the optimal amount of corruption model that views corrupt practices in the tradeoffs context (Johnston, 1996: 326). He illustrates the marginal social costs of corruption and the marginal social costs of removing corruption. Firstly, there is a positive relationship between the marginal costs of corruption and the amount of corruption. The first unit of corrupt activity may cost little, but when corruption is getting worse, the costs of corruption will also keep on rising.

Secondly, the marginal costs of removing corruption, on the other hand, has a negative relationship to the amount of corrupt activity. Klitgaard (1988) explains that if there are a few units of corrupt practice, it is likely to be costly to detect such misconduct. However, if corruption is prevalent, it is rather easy to detect and the costs of reducing corrupt behaviour are likely to be lower.

In addition, Klitgaard (1988) explains that the point where the marginal social costs of corruption and the marginal social costs of reducing corruption intersect is the optimal amount of corruption, indicating the lowest cost combination of corrupt activities and anti-corruption efforts. However, there will be the point at which the marginal costs of corruption are constant, but the marginal costs of reducing corruption might shift. This makes the optimal level of corruption greater than zero (Klitgaard, 1988: 26-27) which means that the marginal costs of additional anti-corruption efforts will exceed the marginal benefits (Johnston, 1996: 326).

Klitgaard (1988: 27) stresses that even when reducing corruption is one of the public sectors' goals, we have to take into consideration the fact that anti-corruption efforts may be costly and there might come a point at which the money spent on it is too large and might impede the organisation's other goals. Therefore, he suggests that we have to find a way to balance the two costs in order to minimise the combined costs to society.

As Klitgaard's approach covers the threat to public interest, it then can refer to political corruption. However, the agent in this model is public officials not politicians which implies that re-election is not their concern. Thus, it is assumed that bribes in this model will take the form of monetary benefit, not political support. The key feature of corruption in this model may be 'transactive corruption'. Transactive corruption means that there are at least two parties, a donor and a recipient who have a mutual agreement to participate in corrupt transactions for both parties' benefits (Heywood, 1997: 425). The donor could be a private sector or the client while the recipient could be a public official or the agent.

Additionally, this study refers to 'rent-seeking theory', a concept in economics which explain the principal-agent conflict. Kajsu (2014: 19) states that what is perceived as corruption in the economic paradigm can be illustrated by "public authorities' rent-seeking behaviour". According to Krueger (1974: 291), state restrictions in economic activities increase rent competition among private sectors. Sometimes the competition is legal but sometimes it is not as it may take a form of bribery or black-market activity. Therefore, corruption will occur where rents exist (Kajsu 2014: 19).

According to Johnston (1997: 72), monopolistic control occurs where opposition parties or economic competition play an insignificant role against corrupt activities conducted by public officials, allowing those who are corrupt to gain long-term maximum benefits. Public officials who have a monopoly of power therefore can transfer such power to economic interest groups in return for money (Johnston 1997: 72).

Governments usually transfer large scale financial advantages to private individuals through state procurement contracts and the award of concessions (Rose-Ackerman, 1999: 27) in which public officials who act as the agent exercise their discretion to extract bribes from the client or private firms (Poeschl and Ribeiro, 2015: 59). By paying bribes, the private firms or the client gain a monopoly on economic rents and a part of the benefits is also allocated to corrupt high-level officials or the principal (Rose-Ackerman, 1999: 27).

According to Butler (2012: 76), when rent-seeking activity is successful, consumers and tax payers are exploited as public wealth is transferred to the monopoly. This also means that consumers not only lose financially but they have less choice and a lower quality of goods or services as a consequence of the existence of a monopoly which charges high prices (Butler, 2012: 76). In this respect, such activity is similar to the market-centered definition that

corruption arises when public officials illegitimately maximise their personal gains by manipulating the public's demand for public products and services. Moreover, rent-seeking theory is in accordance with Klitgaard's approach that the principal also refer to public interest, corruption occurs because of the disloyalty of the agent to the principal for their own benefit, and their act is harmful to the public interest.

In sum, Rose-Ackerman's and Klitgaard's models differ in terms of the principal's role, the principal-agent's conflict of interests, and the consequences of the interaction. Rose-Ackerman views the principal as a high-level official who may or may not be negatively affected and sometimes get the benefits as a consequence of the interaction between the agent and client. Moreover, such interaction seem not to have severe impact on the public interests. For Klitgaard, the term principal refers to high-level officials and covers the public interest. His model stresses the conflict of interest between the principal and the agent in which the corrupt actions of the agent harm public interest and generate social costs.

Other than Rose-Ackerman's and Klitgaard's models, one possible model to explain political corruption is an interaction which creates a win for all the three parties in the context that benefits, i.e. money, are shared and their actions harm the public interest. Two key features of this model are that the interaction between bureaucrats and private sectors occur in the context of transactive corruption and the interaction between bureaucrats and political elites take the form of organised corruption.

According to Johnston (1997: 72), 'organisation' is one significant characteristic of corruption where there is "internal coordination, shared knowledge, and a vertical exchange of benefits." Moreover, Johnston explains that political elites who represent the principal can provide protection, evaluate and approve major decisions, play a major role in controlling the agent's power, and provide incentives to the agent. In order to get such benefits from the principal, bureaucrats or the agent usually share bribes with the principal.

Johnston (1997: 72) also notes that the interaction among the principal-agent-client do not only develop a network of mutual benefit sharing, but also share risk, which means that corrupt activities will be kept hidden from the public. Moreover, criticisms from non-corrupt agents and clients will also be blocked (Johnston, 1997: 72). Importantly, if well-organised corruption exists, opposition political parties and checks and balances within governments' agencies are typically ineffective (Johnston, 1997: 72).

In addition to the principal-agent-client relationship, organised corruption, however, can be found in ‘a patron-client based relationship’ which is built on the strong sense of obligation to show reciprocity (Heidenheimer, 2002: 146). In this context, the patron (the agent) is either a politician or high-level public official while the client means a private firm or low-level official.

According to Orvis and Drogus (2013), the patron–client relationship in the political corruption context means that individual voters or the client are provided by political elites or the patron with material benefits in exchange for political support. Political elites can provide material inducement to the collective, intermediate, and individual levels (Etzioni-Halevy, 2002: 234). On the collective level, the material benefits are to create overall policies, specifically macroeconomic policies such as cutting tax rates to satisfy the electorate, while on the intermediate level it involves the forming of policy in accordance with the demands of particular interest groups, societies, or the electorate (Etzioni-Halevy, 2002: 234).

On the individual level of patron–client relationships, politicians provide material help to their supporters which are institutions, companies, small parties, families, clans, or individuals in which the benefits could take forms of money, allowances, jobs, services, special contracts, etc. for which the supporters will feel under an obligation to support the donors in return (Etzioni-Halevy, 2002: 234). While politicians provide material inducement on the collective level, it is usually considered authorised, but it is increasingly unauthorised once it shifts to the individual level. This is due to the fact that it violates the principle of the democratic process (Etzioni-Halevy, 2002: 234). According to Orvis and Drogus (2013), the patron–client relationships can exist in a democratic society and also in authoritarian regimes.

However, it does not necessarily mean that the clients in political corruption are only those from the private sector. In real life, public officials usually support particular elite politicians which means that they act as the client in this context. For example, a low-level public official, who is the client in this model, perceives that they need protection from high-level patrons of the government. They then give the patron benefits in return for such protection. Thus, dependency relationships between the two parties are created and developed in terms of patron-client systems (Heidenheimer, 2002: 146). The key characteristic, therefore, takes the form of ‘organised corruption’, which is the same as in the additional model of principal-agent-client discussed above except that bureaucrats repay the principals by providing political support such as vote rigging rather than monetary benefit (Johnston, 1997: 72).

As discussed, corrupt practices in bureaucratic, economic, and political contexts usually occur in the interaction among the three parties: the principal, the agent (the patron), and the client. Their interaction tends to create win-win outcomes which satisfy all the parties involved, except the principal in Klitgaard's principal-agent-client model as the benefits are not transferred to them, which in this context could mean high-level officials and the public interest.

On the other hand, although the principal in the Rose-Ackerman approach does not receive benefits in terms of money or bribes, it offsets that by the improved performance of its subordinates. In addition, other than in cases of bureaucratic corruption, the rest (economic and political corruption) are more likely to obviously harm the public interest. As the nature of bureaucratic corruption seems not only to satisfy all parties but also tends not to explicitly damage or have a severe impact on the public interest, it is more likely to be kept secret and not many people in a society would want to deal with it. On the contrary, the patron-client relationship in political corruption, likewise, occurs in a shared benefits context among the parties involved in corrupt activities, but it is possibly more likely to be exposed compared to bureaucratic corruption as it clearly has negative impacts for the public. Figure 2-2 below summarises all aspects of corruption discussed thus far in this chapter and Table 2-1 compares the relationships of all the parties involved in each corruption type.

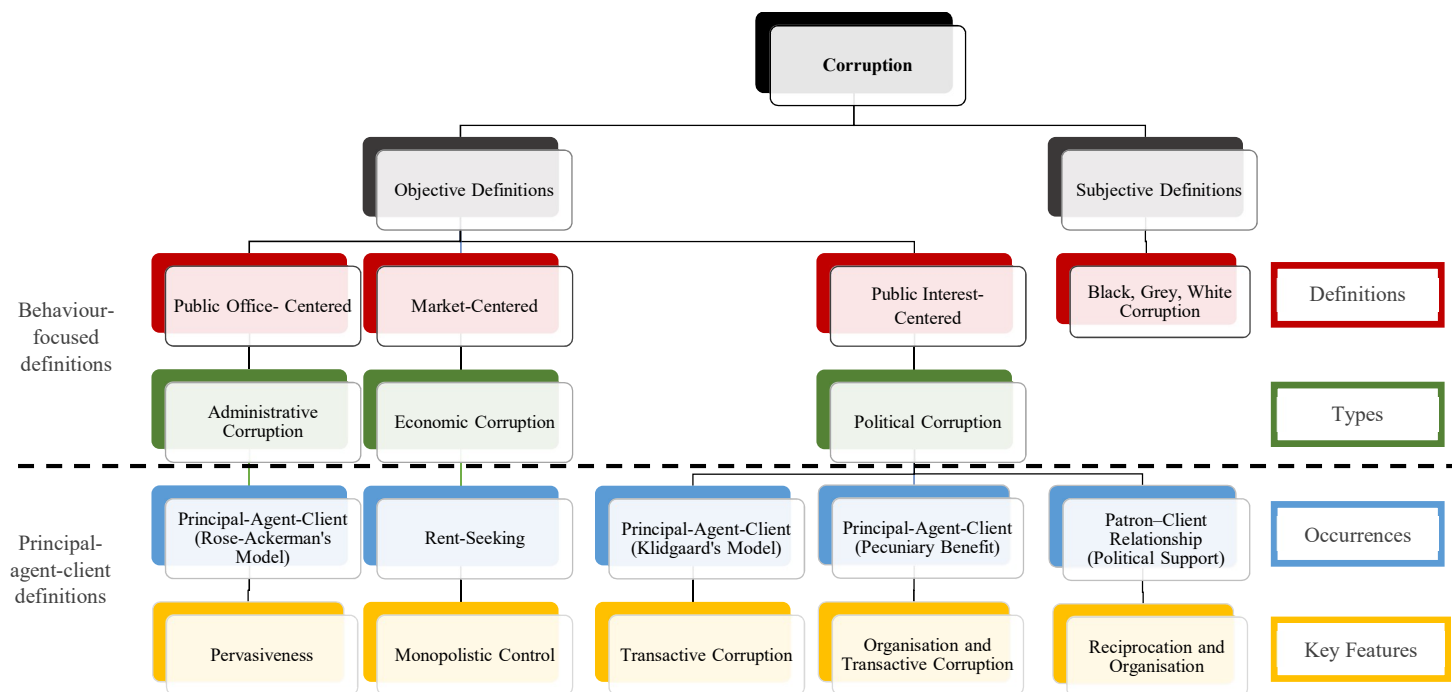


Figure 2-2: Overview of Corruption

| Types of Corruption | Occurrence of Corruption | Key Features | Outcomes | Shared/Non-shared Benefits between Principal-Agent | Threat to the Public Interest |
|---|---|---|--------------|--|-------------------------------|
| Bureaucratic Corruption | Principal-Agent-Client (Rose-Ackerman's Model) | Pervasiveness | Win-Win-Win | Non-Shared | Yes |
| Economic Corruption | Rent-Seeking | Monopolistic Control | Win-Win | Shared | Yes |
| Political Corruption (Pecuniary Benefits) | Principal-Agent-Client (Klitgaard's Model) | Transactive Corruption | Lose-Win-Win | Non-Shared | Yes |
| | Principal-Agent-Client and Patron-Client | Organisation and Transactive Corruption | Win-Win-Win | Shared | Yes |
| Political Corruption (Political Support) | Patron-Client <ul style="list-style-type: none"> • Politician-Private Sector • Politician-Officials | Reciprocation and Organisation | Win-Win | Shared | Yes |

Table 2-1: Comparison among Bureaucratic, Economic, and Political Corruption

As discussed, individuals' rational choice is the significant factor that drives people to be corrupt (Klitgaard 1988; Zanella, 2013; Marquette and Peiffer, 2015). Based on Klitgaard's cost-benefit equation, when the expected benefits from being corrupt are greater than the costs, it is more likely that corruption will occur (Klitgaard 1988). Klitgaard's model comprises several factors such as individuals' ethical values (moral cost and satisfaction from not being corrupt), salary, chance of being detected and punished, and penalty levels. However, principal-agent theory suggests that the probability of being caught and punished factors should be the key focuses of anti-corruption interventions.

In accordance with Klitgaard's model, a study by Donald Cressey (1950) on what makes people violate trust identifies three key factors that drive individuals to engage in corrupt practices or why public officials become corrupt. Cressey (1950: 740) develops the 'fraud theory' based on interviewing imprisoned bank embezzlers who had accepted a position of trust and then violated that trust. He found that a non-shareable problem, an opportunity to commit fraud, and a means of rationalisation are the three key elements that drive persons to become trust violators.

Cressey's final revision of statements which summarise his findings into a sequence are as follows:

"Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-shareable, have the knowledge or awareness that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalizations which enable them to

adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property" (Cressey, 1950: 742).

According to Wells (2013), Cressey's hypothesis later has been developed and is widely known as the fraud triangle model as illustrated in Figure 2-3 below.

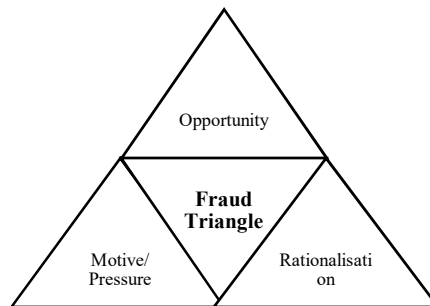


Figure 2-3: Fraud Triangle Model
Source: Wells (2013)

The first element, a 'pressure or motive' to commit fraud, usually results from trust violators' financial needs or their greed (Cappelli et al., 2012: 106; Wells, 2013). According to Cressey (1950: 741); Cappelli et al. (2012: 106); Stamler et al. (2014: 22), fraudsters normally consider themselves to have financial difficulties which are non-shareable or cannot be solved by other persons. However, it does not necessarily mean that persons who possess the position of trust and encounter such pressure will abuse their positions (Gbegi and Adebisi, 2013: 132). They may have the problems but not violate the trust. According to Gbegi and Adebisi (2013: 132), the pressure or motive can be illustrated as "the source of heat for the fire".

The second element is a 'perceived opportunity' to commit fraud (Cappelli et al., 2012: 107; Wells, 2013). The opportunity emerges once fraudsters realise that they have the knowledge, technical skills, and ability to violate their position of trust which allow them to resolve their problems in secret or by secret means (Cressey, 1950: 741; Cappelli et al., 2012: 106; Stamler et al., 2014: 22). This kind of opportunity is defined as "the fuel that keeps the fire going" (Gbegi and Adebisi, 2013: 132).

'Rationalisation' is the last element in the fraud model. This refers to self-deception. At this stage, fraudsters do not see themselves as trust violators as they adjust their behaviour in such a way that "ethical hesitations" to violate the trust are overcome (Cappelli et al., 2012: 107). In Cressey's study (1950: 741), trust violators are aware of their illegal behaviour at all times but

"kidded themselves" into thinking that their acts were not unlawful. Rationalisation is viewed as "the oxygen that keeps the fire burning" (Gbegi and Adebisi, 2013: 132).

As previously mentioned, agency theory identifies that if the information asymmetry problem occurs, the agents may not act in the principals' best interests, but for their own benefit instead (Jensen and Meckling, 1976). This means that when the principals have less/no information, it is difficult to monitor the agents' actions (Eisenhardt, 1989: 61). This lowers the risk of being caught and punished or increases the corruption opportunities.

According to Marquette and Peiffer (2015), it implies that the key success of anti-corruption strategies inspired by principal-agent theory depends on the principals and anti-corruption tools. Firstly, there must be an active principal who monitors and sanctions their agents' activities to hold them accountable. Secondly and more importantly, anti-corruption interventions must have the capacity to alter the perceived cost-benefit calculation of the agents. In other words, the mechanisms should increase individuals' perception that the costs of being corrupt is greater than the benefits. Therefore, anti-corruption interventions should focus on increasing transparency, increasing monitoring tools, encouraging civil society to act as a watch dog, and strengthening sanctions (Marquette and Peiffer, 2015). These will facilitate the principals to keep track of the agents' activities and thus increase the chance of detection and prosecution.

This study draws links between Cressey's fraud theory (motive, opportunity, and rationalisation), agency theory (information asymmetry, utility maximisation, and patron-client relationship), Klitgaard's formula (individuals' calculation on cost-benefit), Palmier's assumption on corruption (low salary, abundant opportunity to corrupt, and low chance of detection and punishment), Palmier's and Quah's suggestions to the corruption problem (increasing salary, removing opportunity, and increasing chance of detection and punishment), and Marquette's and Peiffer's key success of anti-corruption interventions based on principal-agent theory (transparency, monitoring, and sanctioning), as shown in Figure 2-4 below.

Firstly, rationalisation in the fraud theory is considered to be related to patron-client based relationship in agency theory and the (low) moral cost and (low) satisfaction from not being corrupt in Klitgaard's formula. Heidenheimer (2002: 146) indicates that the patron-client relationship is built on the strong sense and belief in obligations of reciprocity between a patron (e.g., a high level public official) and a client (a private actor e.g., a contractor/supplier) who have a mutual agreement to participate in corrupt transactions for both parties' benefits. If

corruption takes place within the envelope of a relationship in which there exists strong belief in obligations of reciprocity, and such customs or behaviour are deeply embedded in a society, then corrupt people might make their belief self-deceptive. Even though they realise that their acts are illegal, they may adopt false beliefs to allow them to consider such corrupt activities acceptable. However, rationalisation is regarded as one of a collective action problem which will be discussed later in this chapter.

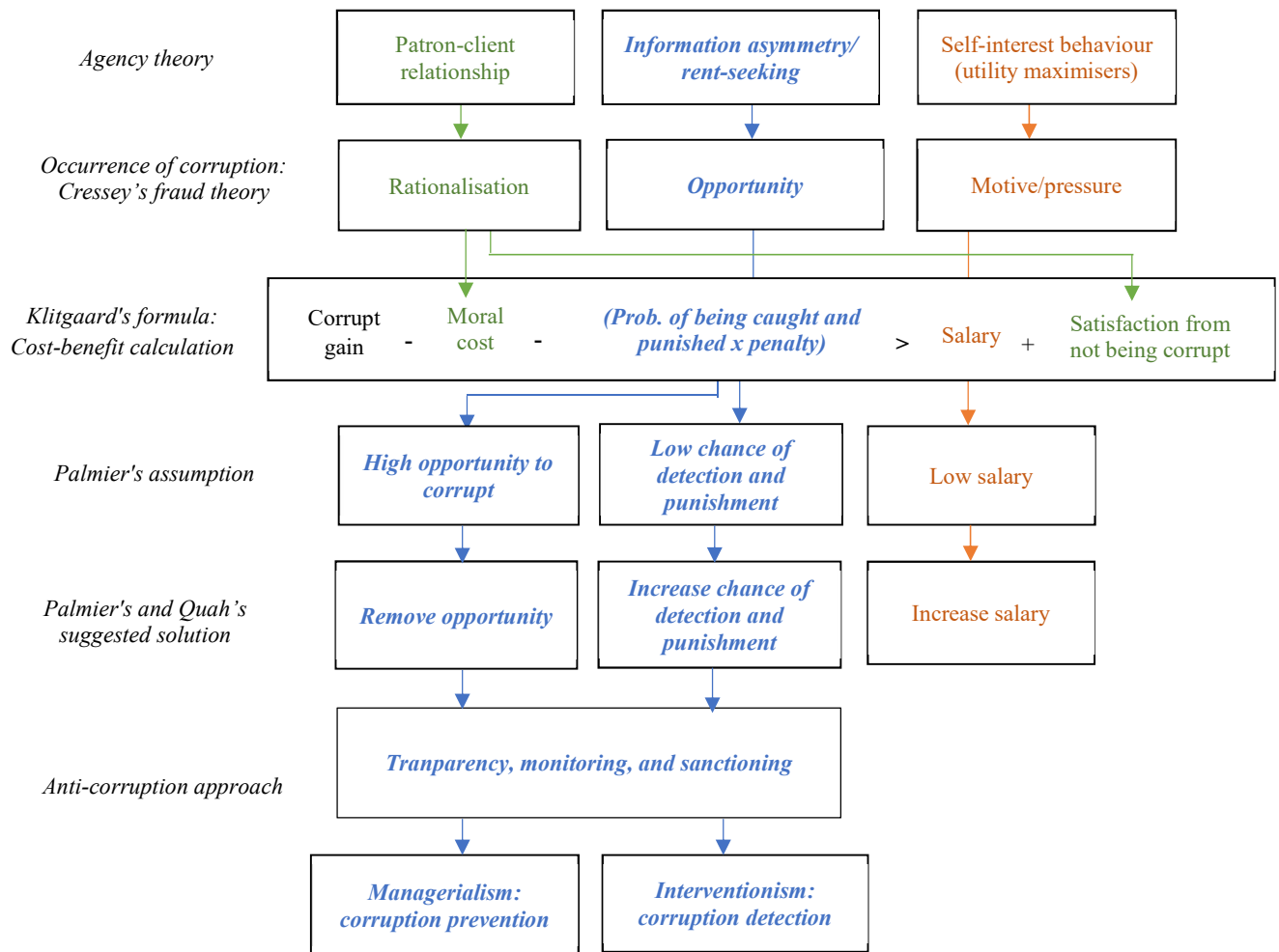


Figure 2-4: Links of Conditions Conducive to Corruption and Suggested Solutions Based on Agent Theory

Secondly, motive or pressure in fraud theory is comparable to individuals' self-interest behaviour (utility maximisers in agency theory), and the (low) salaries of public officials in Klitgaard's formula and Palmier's assumption. This element in the fraud triangle model seems to be in line with the perspective of Rose-Ackerman (1999: 2). She states that it is obvious that cultural and value differences exist across societies, but based on economic theory, one universal human motivator for a person to engage in corrupt activities is self-interest which includes the

interests of his or her family and friends. Such a motivator is that of an individual's sense of well-being (Shughart II, 2008) or is labeled by economists as "utility maximisation" (Rose-Ackerman, 1999: 2) in the agency theory that was mentioned earlier.

In order to decrease the corruption levels in this context, economists emphasise public authorities' self-interested behaviour and find ways to reduce it (Kajsiu, 2014: 19). Rose-Ackerman (1978: 3-4) also suggests that a set of analytical methods must be developed to integrate economists' concerns of human self-interest behaviour with political scientists' interest in government institutions, generating incentive structures which are different from the assumption made in economic paradigm. As previously stated, increasing public officials' salary is the suggested solution by Palmier and Quah (Quah, 2003).

Thirdly, an opportunity to commit fraud in fraud theory may link with rent-seeking opportunities and information asymmetry in agency theory, the (low) probability of being caught and punished in Klitgaard's formula, and abundant opportunity to corrupt and low chance of detection and punishment in Palmier's assumption. As discussed in the rent-seeking theory above, politicians and public officials are in positions that can either allocate public resource to satisfy the public interest or allocate them to private interests for their own personal benefit. This means that being an official is an opportunity to become a utility maximiser who might act on his or her own interests.

Additionally, the information asymmetry problem could provide an opportunity for the corrupt officials to violate their trust and duties. Moreover, when probability of being detected and charged is low, individuals might perceive of the increasing corrupt opportunities. Thus, eliminating the opportunity to corrupt and increasing the risk of detection and punishment might be the solution as Palmier suggested (Quah, 2003). To pursue such anti-corruption approaches, anti-corruption interventions should focus on transparency, monitoring, and sanctioning (Marquette and Peiffer, 2015) as discussed earlier.

More importantly, among the three elements in fraud theory, opportunity might be the easiest factor to deal with. According to Cappelli et al. (2012: 106), fraud can occur when all the three elements in the fraud triangle model (pressure/motive, opportunity, and rationalisation) are present. However, of the three elements, it is not an easy task to control pressure/motive and rationalisation because the two aspects take place in perpetrators' minds which are less likely to be directly observed (Singleton and Singleton, 2010). In addition, effectively dealing with the

opportunity factors might positively impact on the other factors. For instance, without an opportunity, individuals cannot commit fraud even though they have motive to do it (Gbegi and Adebisi, 2013: 132), they convince themselves that their corrupt behaviour is acceptable (rationalisation), or there exists a strong circle of impunity in a society.

According to Cappelli et al., (2012: 107), in an organisation where security controls and management oversight are ineffective, such opportunity is more likely to occur. Martini (2012) suggests that there are a number of methods to reduce corruption such as reducing red tape in public services and establishing standardisation to enable data sharing. The goals can be set so as to simplify administrative functions/process, eliminate unnecessary administrative burdens, and improve transparency and accountability of bureaucrats.

In reality, corrupt bureaucrats can conceal their malpractices by keeping their clients satisfied. However, low-level officials generally have less power to quash the criminal prosecutors' interventions (Rose-Ackerman, 1978: 86). Prosecutors and high-level officials are more likely to play their roles when there is a complaint of their subordinate's misconduct. In the case of bureaucrats' activities not being associated with electoral outcomes, re-election is not their concern, Rose-Ackerman (1978: 85) suggests that increasing the cost of misconduct such as the risk of being detected, losing a job, or being punished, therefore, are considered as a way to minimise public officials' corrupt behaviour.

This study refers to managerialism and interventionism as the two practical anti-corruption strategies to deal with corruption as a principal-agent problem. 'Managerialism' or preventive model is an *ex-ante anti-corruption strategy* which focuses on corruption prevention (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). According to Larmour and Wolanin (2013: xvii), managerialist philosophers take the view that the world consists of opportunity and the persons who exploit it. Moore (1994: 84) states that corruption does not result only from individuals' intention to make use of a bureaucratic system for their own benefit, but can happen opportunistically when these corrupt people have seen such weaknesses as obsolete policy, insufficient guidance, complicated process, and unenforceable law, resulting in frustration, delay, excessive exercise of discretion and ineffective supervision.

Based on the principle that "prevention is better than cure", lowering or eliminating such opportunity by building appropriate anti-corruption procedures, systems, and protocols will reduce and prevent individuals becoming corrupt (McCusker, 2006: 8; Larmour and Wolanin,

2013: xvii). For instance, in an organisational context, Iyer and Samociuk (2012: 2) argue that once the management has recognised the cost of corruption and fraud in their organisation, they will adopt measures to stop it. According to Klitgaard's (1988) formula 'Corruption = Monopoly + Discretion – Accountability', curbing corruption based on managerialist approaches can be done by 'demonopolisation' which facilitates competition and ensures transparency and accountability in public resource allocation (Brata, 2014: 14).

However, there are several limitations of this model which should be considered when implementing it as an anti-corruption strategy. Firstly, the approach aims to cover the broadest possible area, therefore it is more suitable to tackle a predetermined or standardised problem in workplaces (Larmour and Wolanin, 2013: xvii). As a result, this may prevent only insignificant problems rather than prevent serious misconduct which rarely happens (Larmour and Wolanin, 2013: xvii).

Therefore, a loophole can emerge in such a way that individuals may not necessarily follow such predetermined rules of the system (McCusker, 2006: 4). For example, the New South Wales ICAC (2014) usually finds that corrupt individuals exploit weakness, looseness, and complexity in operating processes to avoid the control mechanisms already put in place to prevent corrupt acts. Importantly, such misconduct is new and different from what organisations have known before, so it is less likely that the currently used control mechanisms will detect it (The New South Wales ICAC, 2014). More seriously, even though activities conducted are considered as corruption, where the impermissible behaviour is clearly stated, corrupt people are more likely to adopt the attitude that what is not prescribed behaviour is permissible behaviour (Larmour and Wolanin, 2013: xviii). This problem could be considered as rationalisation in Cressey's triangle model mentioned earlier.

On the other hand, excessive controls are likely to result in less effective control mechanisms. The New South Wales ICAC (2014) points out that a loose system increases the opportunity for illegal acts. However, when additional control mechanisms put in place become excessive, it can eventually lead to complex and ineffective control systems that cover unnecessary risks of illegal conduct (The New South Wales ICAC, 2014). This supports Klitgaard's optimal amount of corruption model whereby, at some points, the marginal costs of additional anti-corruption efforts may exceed the marginal benefits (Johnston, 1996: 326).

In addition, managerialist strategies sometimes overlook market forces (McCusker, 2006: 8) which may increase the amount to be gained from corruption. This can be explained by basic economic theory: when supply decreases and demand remains the same, it causes an increase in price (Arora, 2007: 268). In the context of corruption where preventive mechanisms exist to detect corrupt practices, the number of corrupt officials might go down, but the remaining corrupt officials are now in the situation that they can ask for a higher bribe in exchange for confidential information (McCusker, 2006: 8; Larmour and Wolanin, 2013: xix).

In addition, economic theory further states that when the price goes up, more suppliers will enter the market (Gillespie, 2013: 69). For instance, procuring officers may ask a bidding company for a bribe in exchange for providing the terms of reference (TOR) for a tender in advance. The premium on inside information could attract other officials to engage in corrupt activities. Importantly, the preventive approach may unintentionally increase the skills of those officials finding ways to avoid detection (Larmour and Wolanin, 2013: xix). This means that the preventive mechanisms may not actually reduce corruption but instead encourage it in a new place (Larmour and Wolanin, 2013: xix).

Lastly, according to principal-agent theory, one of the problems is information asymmetry. Corrupt agents who shirk their duties may make a report to principals selectively or dishonestly. Individuals may not report all information to their boss and the report will focus only on their success while their failures are minimised or hidden (Hollingshead et al., 2007: 266). Larmour and Wolanin (2013: xix) state that principals usually require a declaration of information held by the agents. However, as the forms of corrupt practices are changed, reporting such information may not allow the principals to spot any unusual behaviour which is not declared (Larmour and Wolanin, 2013: xix).

In addition to managerialism, this study focuses on interventionism as another anti-corruption strategy based on principal-agent theory. 'Interventionism' is an ex-post anti-corruption strategy which tackles corrupt practices that have already occurred (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). This school of thought builds anti-corruption mechanisms on the principle that society can be protected by the use of law enforcement (Brata, 2014: 14). For instance, increasing the chance of misconduct being detected and imposing stern penalties for corrupt behaviour is intended to discourage the perpetrator from continuing or repeating a crime and deter other potential offenders (Larmour and Wolanin, 2013: xv; Brata, 2014: 14). Punishment, quarantine, rehabilitation, and deterrence are the key distinctions of this approach.

It is assumed that such functions will prevent reoffending (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv).

Interventionist strategies generally are about the very last stage in the process of corruption (Vander Beken, 2001: 409), as it waits for illegal actions to happen so that the perpetrator can be charged (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv). The United Nations Office on Drugs and Crime (UNODC) (2012: 1) states that in the context of crime, it is less likely that prevention strategies will succeed unless there are effective measures to identify the re-offending of recidivists. The lack of effective intervention, criminal penalties, or punishments may not stop recidivism (UNODC, 2012: 1).

Interventionism has several difficulties. Firstly, unlike managerialism, interventionist approaches have to wait for corrupt actions to occur. Consequently, they cannot prevent corrupt activity nor undo any harm that has already happened (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv). Secondly, most illegal activities are unreported because corruption occurs in secrecy. It takes the form of conspiracy, consensual crime, or collusion by its nature (Mandel, 2011: 44) which make any misconduct difficult to detect. As previously stated, unreported corrupt activities can be found in the context of extortive corruption and defensive corruption where the authorities do nothing in exchange for bribes (Rose-Ackerman, 1978: 62). Even worse, if corrupt activities take place in such a way that there is no obvious victim, the illegal actions will remain undetected and deterrence cannot be measured because of inadequate reporting (Larmour and Wolanin, 2013: xvi). As indicated previously, this non-reporting will normally occur in principal-agent-client relationships where all parties benefit and the interaction among them takes the form of organised corruption (Johnston, 1997: 72).

Therefore, effective interventionist approaches are not about the rule but the exception (Larmour and Wolanin, 2013: xvi). Moreover, a workable interventionist approach requires everyone to take part in supervision or keep an eye on other people's activities. Problems include target selection bias and uncertain detection (Larmour and Wolanin, 2013: xvi). For example, sometimes corrupt activities may be reported as an act of revenge i.e. against political opponents, while the ones who are not affected by corrupt activities might not report the misconduct they perceive (Larmour and Wolanin, 2013: xvi).

Another area to be considered is that the low detection rates of misconduct could possibly mean that corruption is almost risk free to the offenders. Interventionists believe that potential corrupt

persons use "rational judgment" in comparing the benefits they will get from being corrupt with the likelihood of being detected and the severity of the penalty, and then they act on the consequence of that expected equation (Larmour and Wolanin, 2013: xvi).

Returning briefly to Klitgaard's formula (1988: 69), a person has two options which are to engage or not engage in corruption. If that person decides not to be corrupt, he receives his salary as usual and acquires the moral satisfaction from not being corrupt. On the other hand, if he engages in an illegal activity, he receives a corrupt gain and also pays the moral cost (Klitgaard, 1988: 69). The latter is subject to several factors such as his ethical values or cultural values and the amount of bribe compared to his salary (Klitgaard, 1988: 69).

Marquette and Peiffer (2015) point out that even though there has been significant investment in anti-corruption efforts, recent studies provide only weak evidence to support the effectiveness of public sector reforms based on principal-agent approach. As managerialism and interventionism have some limitations, the effectiveness of these anti-corruption interventions may be limited. In other words, a principal-agent approach or risk-based approach to anti-corruption that focuses on transparency, monitoring, and sanctioning might not effectively deal with corruption.

More importantly, one possible reason of the unsuccessful anti-corruption interventions is that viewing the phenomenon of corruption as a principal-agent problem is "a theoretical misunderstanding of the nature of corruption" (Marquette and Peiffer, 2015: 2). Recently, several academics have argued that the phenomenon of corruption, especially systemic corruption in developing countries, should be described as 'a collective action problem' (Marquette and Peiffer, 2015; Carson and Prado, 2016). The next section will present this approach in detail.

2.4.2 A Collective Action Approach to Corruption

Collective action approach is another perspective on the occurrence of corruption which highlights "individuals' decisions of group dynamics" (Marquette and Peiffer, 2015). The approach focuses on individuals' trust in other people or how individuals perceive and/or experience other people's behaviour in their society and therefore behave accordingly. In other words, when corruption is the expected behaviour in a society, everyone (including both principals and agents) should be expected to be corrupt (Marquette and Peiffer, 2015).

According to Marquette and Peiffer (2015), if the success of the application of anti-corruption interventions based on principal-agent approach depends on the principals' ability to monitor and sanction their agent's action, 'the absence of political will and commitment of the principals' in the implementation of such anti-corruption reforms explains the cause of the unworkable anti-corruption initiatives (Marquette and Peiffer, 2015).

Some scholars (Tirole, 1993; 1996, Mungiu-Pippidi, 2006; Rothstein, 2011) make an observation of a massive disparity in corruption pattern across different nations, and argue that the current anti-corruption strategies promoted by several national and international aid organisations are, in fact, not universally applicable (Mungiu-Pippidi, 2006; Rothstein, 2011). They argue that anti-corruption policies tend to effectively deal with the problem in developed countries, but not in developing countries, where corruption is rife. In other word, these authors address the question of what causes some societies to be more corrupt than others.

Mungiu-Pippidi (2006) posits the view that the phenomenon of corruption in developed countries is not the same as in those developing countries. While in the former corruption represents 'individual' cases of violation of the norm of integrity, in the latter it is 'particularism' or "a mode of 'social' organization characterised by the regular distribution of public goods on a nonuniversalistic basis that mirrors the vicious distribution of power within such societies" (Mungiu-Pippidi, 2006: 87). According to Mungiu-Pippidi (2006: 88; 2017: 5), particularism refers to a feature of "collectivistic and hierarchical societies" in which "a culture of privilege reigns", alongside "deviation from the ethical universalism norm of social allocation" whereby equal treatment from the government does not to apply to everybody (Mungiu-Pippidi, 2006: 88; 2017: 5).

Mungiu-Pippidi (2017, 5), thus, points out that a society successful in controlling corruption is one in which corrupt practices are "a mere individual deviation from an otherwise enshrined integrity norm." In contrast, when corrupt acts are common and not perceived as deviation, corrupt practices are likely to resist the implementation of anti-corruption mechanisms. More importantly, individuals not only expect discrimination and are well aware that treatment depends on their power in society, but also the unfair treatment is accepted as a 'norm' in society (Mungiu-Pippidi 2006).

Every nation and culture has its own unique social etiquette, which people widely know, accept, and follow because of the negative consequences of being different. Tirole (1993) points out

that “collective reputations” or the average past behaviour of the members of a society do affect the level of corruption and also have an influence on the behaviour of new generations in that society. When individuals in a society engage in economic activity, ‘trust among members’ is the key factor affecting their decision to engage in corruption (Tirole 1993). According to Tirole (1993), a record of a “reputation for honesty” of potential trading partners (or members in a society) appears to be used as a basis for predicting their future behaviour (Tirole 1993). However, the real track record of each potential trading partner’s past behaviour is unlikely to be completely observed. Individuals, then, tend to make inferences regarding their potential trading partners’ honesty based on “the society’s behaviour as a whole” or to use collective reputations to predict future behaviour (Tirole, 1993).

Tirole (1993: 8) summarises the concept of collective reputations as

“If society as a whole is honest, people are willing to trust individuals whom they have not heard to be corrupt. And because society will trust them in the future if they keep a clean record, individuals are willing to invest in a good reputation. In contrast, in a corrupt society, the general suspicion makes honesty a low-yield investment, and distrust is indeed justified”.

In accordance with Tirole, Rothstein (2011: 231) posits the view that corruption is, in fact, a “self-reinforcing phenomenon” or “once the system gets there, it stays there”. According to Tirole (1996), stereotypes can become long lasting and can be represented across not only individuals and but also generations. Tirole (1996) argues that a new generation in a society absorbs collective behaviour from their older generations. In addition, poor collective reputation on the part of the elders (the average past behaviour of the elders in a society perceived/experienced by the current generation) causes the current generation to see good behaviour as not worth doing, and keeping society in patterns of poor behaviour in the future (Tirole, 1996). Therefore, not only collective reputation affects the current incentives of each member in that society, but the collective reputations of the older generation also have an affect on the behaviour of the new generations.

According to Mungiu-Pippidi (2017), corrupt societies struggle with managing the balance of “opportunities for corruption” e.g., bureaucratic red tape and lack of transparency and “constraints on elite behaviour” (particularism) e.g., judicial independence, media freedom, and enlightened citizens. However, we still lack of knowledge and are unable to identify an approach

that can make people in a corrupt society break free from the vicious cycle of institutional corruption (Mungiu-Pippidi, 2017).

Previous studies support the view that corruption is a self-reinforcing phenomenon and successful control of corruption requires not only direct anti-corruption mechanisms (e.g., anti-corruption interventions based on principal-agent theory) but also indirect approaches to tackle particularism. For instance, widespread corruption in Italy became a subject of the “clean hands” investigations or judicial revolution in the early 1990s as part of efforts to eliminate political corruption. However, the success of the operation lasted only short-time (Della Porta and Vannucci, 2007; Vannucci, 2009). It later turned out to be that corruption situation in Italy became worse than before the launch of the investigations (Della Porta and Vannucci, 2007; Vannucci, 2009).

Root (1996) argues that the quality of political and legal institutions, which was the key to the successful anti-corruption campaigns, in Singapore and Hong Kong was not culturally determined. He ascribes the two countries’ significant economic growth to the successful anti-corruption campaigns launched in the 1970s. Rothstein (2011) cites this study in support of his assumption that corruption is a self-reinforcing phenomenon. He then refers to the Corruption Perceptions Index (CPI) which is published annually by Transparency International, one of the most well-known anti-corruption non-governmental organisations, to compare the perceived level of corruption in Singapore, Hong Kong, China, Malaysia, and Indonesia, where different countries’ citizens can be placed in the same cultural or racial group.

Even though it should be noted that the CPI or the public awareness of corruption cannot perfectly reflect the country’s performance in anti-corruption efforts (Arndt and Oman, 2006: 41), Rothstein (2011) refers to the CPI to compare the general public’s perception of corruption in these countries. Figure 2-5 below compares the perceived levels of public sector corruption in Singapore, Hong Kong, China, Malaysia, and Indonesia between 2012 and 2018. The chart shows that people’s perception of corruption of each country is likely to be stable overtime. Based on the CPI, Singapore and Hong Kong are generally classified as low corruption countries while China, Indonesia, and Malaysia are perceived to have relatively high corruption (Rothstein, 2011).

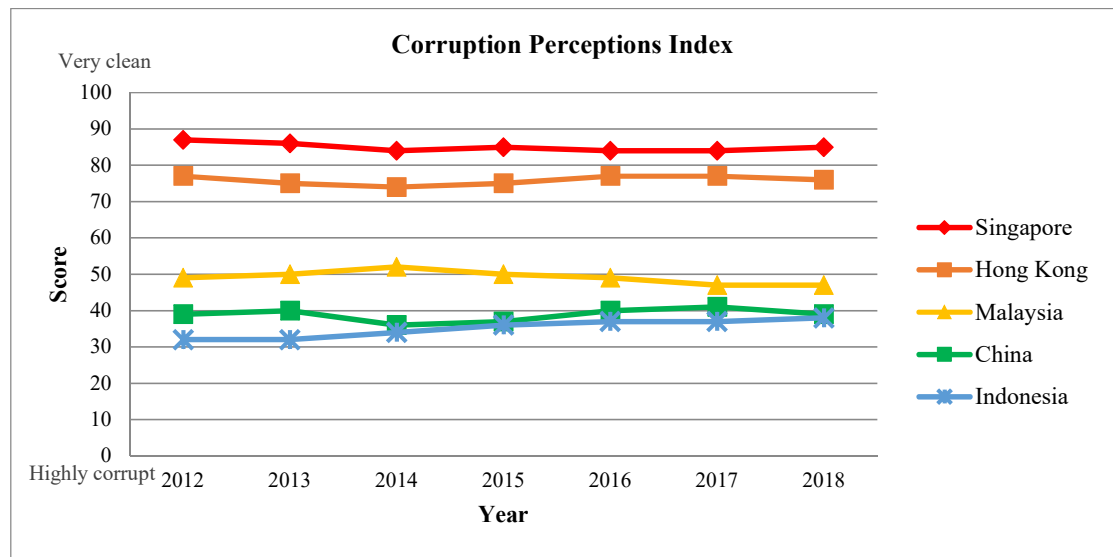


Figure 2-5: The Perceived Levels of Public Sector Corruption in Singapore, Hong Kong, China, Malaysia, and Indonesia in 2012-2018 (Source: Transparency International, 2018d)

According to the chart, while Singapore (with scores between 80 and 90) and Hong Kong (with scores between 70 and 80) consistently remain at the top, Malaysia (with scores between 40 and 50) remains close to the middle, and China and Indonesia (with scores between 30 and 40) are consistently at the bottom. Therefore, Rothstein (2011: 231) suggests that “While the practice of corruption clearly has cultural traits, it should not be seen as culturally determined.”

In addition, this may support Tirole’s (1993; 1996) and Rothstein’s (2011) argument that history matters and corruption is a self-reinforcing phenomenon. In other words, it reflects Tirole’s view (1993: 7) that: “a society in which corruption develops unfettered today is more likely to be corrupt tomorrow than an identical society that takes a better start”.

In accordance with Tirole (1993) and Mungiu-Pippidi (2006) regarding collective reputations and particularism, corruption, especially in a society where corruption is systemic, has recently been framed as ‘collective action’ or ‘social trap problem’ rather than a principal-agent problem (Rothstein, 2011; Carson and Prado, 2016). According to Carson and Prado (2016: 56), the collective social problem is that “an individual may rationally choose to engage in corrupt behaviour in a context in which a significant number of other individuals are also acting corruptly.” Kingston (2004) illustrates the term as “the citizens or firms dealing with a corrupt government official would all benefit from an agreement not to pay bribes, but each has an incentive to pay bribes to try to get preferential treatment.”

In economics and political science, the principal-agent theory is the most predominant model of understanding corruption (Teorell, 2007; Rothstein, 2011). However, Rothstein (2011) argues that anti-corruption initiatives based on this theory will be effective only in a society that is constructed on the basis that the agents' fear of being caught is higher than their greed. According to the principal-agent model, corruption occurs as the agents' misuse entrusted power for their private benefit, and the problem can be solved by 'fixing the incentive structure' (Teorell 2007) as discussed earlier in this chapter (e.g., Figure 2-4: Links of Conditions Conducive to Corruption and Suggested Solutions Based on Principal-Agent Approach). In other words, principals must increase the negative return to agents of engaging in corrupt practices to a point in which the agents' fear of being detected is greater than their greed, for example by increasing the probability of being detected (Rothstein, 2011: 5-6).

On the other hand, Rothstein (2011) contends that such a solution is unlikely to be successful in a society plagued by corruption. He insists that in these societies, small institutional anti-corruption initiatives based on the principal-agent model, as promoted by several national and international aid organisations cannot overcome the collective social problem. Suppose a society has long been plagued by severe corruption. The agents, who probably are well aware that they could be in a position to gain from not committing corrupt practices, cannot trust that the others will not cheat. Consequently, for their own benefit and to prevent others from taking advantage of them, they ask for or pay bribes (Rothstein 2011).

More importantly, instead of breaking the vicious circle or changing the accepted unfair rules of the game, people, especially in a particularistic society, continue to struggle to be privileged over others (Mungiu-Pippidi 2006). According to Vannucci (2009: 256), "social pressures" and "internalised values" cause individuals to engage in corrupt practices. In fact, corrupt people in a poor collective reputation society are well aware that corrupt practices are morally wrong (Rothstein 2011). However, "the system" or living in a place where corrupt practices are widespread, is used as an excuse for engaging in corruption and people believe that they are stuck in a social trap (Rothstein, 2011). This is in accordance with the rationalisation problem in fraud theory or could be explained as the patron-client relationships as mentioned earlier.

Therefore, several scholars strongly believe that corruption problems in developing countries or where corruption is often systemic are unlikely to be eradicated by using direct anti-corruption mechanisms (e.g., principal-agent or risk-based anti-corruption approaches) that are applicable in most developed countries. According to Diamond (2007: 119),

“Endemic corruption is not some flaw that can be corrected with a technical fix or a political push. It is the way that the system works, and it is deeply embedded in the norms and expectations of political and social life. Reducing it to less destructive levels—and keeping it there—requires revolutionary change in institutions.”

Similarly, previous research argues that effective direct anti-corruption interventions require certain institutional pre-conditions (Johnston, 2002a; Mungiu-Pippidi, 2006) such as “the genuine rule of law” (Johnston, 2002a). According to Weingast (1997: 245), the rule of law refers to “a set of stable political rules and rights applied impartially to all citizens”. Similarly, Johnston (2002a: 2), defines the term as “the exercise of state power using, and guided by, published written standards that embody widely-supported social values, avoid particularism, and enjoy broad-based public support.”

For the rule of law to be strong, Johnston (2002a) states that people should uphold the law as they perceive that “they have a stake in its effectiveness” but not because they fear of the consequences of not abiding by the law. More importantly, state-society cooperation must be present for the “genuine rule of law” to be in existence – that is, criminals receive both ‘formal sanctions’ i.e. legal punishment and ‘informal sanctions’ i.e. social sanction, which might include disapproval, criticism, or exclusion. Johnston (2002a) also points out that the approach relying heavily on the former e.g., detection and legal penalties, and without the latter, may have a positive short-term impact and is less likely to generate strong support for the system. The clean hands investigations in Italy is a typical example of this inference.

In accordance with Johnston (2002a), Mungiu-Pippidi (2006) indicates that in order to successfully control corruption, anti-corruption initiatives must tackle the problem of particularism. Rothstein (2011), however, suggests that anti-corruption policies focusing on a good governance regime e.g., promoting morality, will not convince enough for people to walk out of the social trap because people tend to justify their unethical behaviour corrupt as normal and acceptable. Therefore, anti-corruption mechanisms have to reach a “tipping point” which effectively convinces people in the society to believe that ‘all other members’ will be honest rather than cheat on each other (Rothstein 2011).

Based on previous studies mentioned above, in order to successfully control corruption, especially in a corrupt society, both direct and indirect anti-corruption approaches are required. Opportunities for corruption are likely to be found in every country. For example, firms in the

United States of America, Germany, and Japan (where legal and institutional systems are relatively strong) may use political connections to try to create market conditions which are favourable to them (Mungiu-Pippidi 2017). The key difference is that while corrupt practices are perceived as deviation in the former, it is a norm and seen as more acceptable (due to poor collective reputation) by most people in the latter. Therefore, corruption becomes a vicious circle (Mungiu-Pippidi 2017) or self-reinforcing phenomenon in many developing countries, which social trap is used as an excuse to engage in corrupt practices (Rothstein, 2011). In other words, people cannot trust that the others will not cheat and they have no choice but to engage in corrupt practices to get the same privileges.

In accordance with Johnston's (2002a) and Mungiu-Pippidi's (2006) view that effective direct anti-corruption interventions require certain institutional pre-conditions, Marquette and Peiffer (2015) posit that the persistence of corruption in a highly corrupt society or where corruption is systemic should be explained as a combination of the principal-agent problem and collective action problem. They point out that corrupt practices persist in these societies because not only there are some difficulties in monitoring and sanctioning corrupt acts, but people also perceive corruption as normal and they have no incentive not to be corrupt nor to fight against it. Marquette and Peiffer (2015) also state that the two approaches are based on "individual rationality", "individual self-interest", and "the perceived unlikely chance" that they will be held responsible nor accountable for their corrupt behaviours.

In particular, in principal-agent theory, the agents are likely to be corrupt because of their self-interest and the perception that the principals cannot monitor their activities and thus hold them accountable (Marquette and Peiffer, 2015). On the other hand, collective action approach also assumes that individuals' engaging in corruption is influenced by self-interest (Marquette and Peiffer, 2015) and corrupt practices spread on people's rationale that "everybody does it." (Rosenbloom, 2009). Then, this implies that individuals' "beneficiary status" could be reassured or they would not lose and not be held accountable if they engage in corrupt activities (Marquette and Peiffer, 2015). Moreover, "the first move" in abstaining from or opposing corruption could be wasted, not rewarded, or punished (Marquette and Peiffer, 2015).

On the other hand, it might be difficult to deal with corruption under a condition that individuals have incentive to fight against the problem but there is no direct anti-corruption means in place. For instance, Integrity Pacts are anti-corruption tools developed by Transparency International to prevent corruption in public procurement (Transparency International, 2018c). The tools

involve a written agreement between public procuring agencies and bidding firms that they will abstain from corrupt practices (Transparency International, 2018c). Moreover, a civil society organisation as an observer will engage in monitoring the procurement process to ensure accountability and results are publicly accessible (Transparency International, 2018c). According to Marquette and Peiffer (2015), Integrity Pacts are regarded as collective action theory inspired interventions in which its success depends on trust among the parties involved and several factors such as procurement information transparency, political will of governments to support the projects, and the ability of the parties involved in the process to monitor the others' actions. Hence, its success is challenged when there is a lack of these factors. For instance, a lack of procurement information transparency implies that direct anti-corruption tools based on agency theory to facilitate the principals' role are not in place. Consequently, this will make it difficult for the active parties to keep track of the others' behaviour.

Therefore, according to Marquette and Peiffer (2015), this implies that in a society where corruption is systemic, it does not necessarily mean that anti-corruption interventions based on principal-agent theory should be ignored. The two approaches, in fact, may be combining in such a way as to enhance the effectiveness of anti-corruption interventions. A conceptual framework of corruption presented in this study is summarised in Figure 2-6 below.

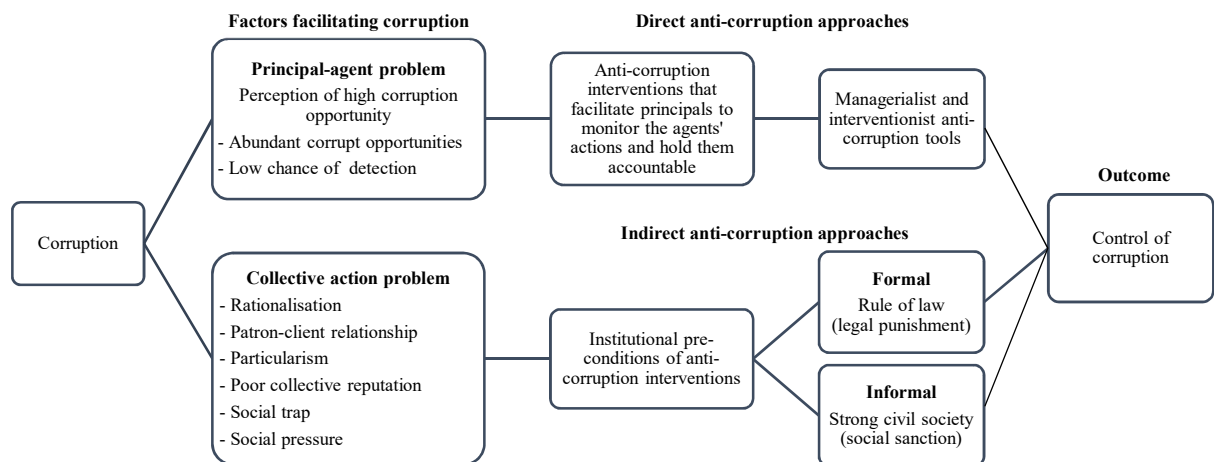


Figure 2-6: Conceptual Framework of Corruption and Suggested Anti-Corruption Programs Based on Principal-Agent Approach and Collective Action Approach

2.5 Summary

In corruption literature, there are a number of different facets relevant to the phenomenon of corruption such as its meanings, types, and occurrences. However, it is likely that there is no universal standard to define the term corruption. The most widely used definition, which is the misuse of public office for private gain, is concise, but rather broad. Corrupt practices measured against either objective standards (public office-centered, market-centered, and public interest-centered approaches), which rely primarily on rules and regulations (Johnston, 1996: 323; Philp, 1997: 440; Johnston, 2002b: 18; Heidenheimer and Johnston, 2002: 7), or subjective standards (black, white, or grey corruption), which emphasise the degree of public tolerance to corruption (Johnson and Sharma, 2004: 2; Werner, 2009: 211) imply that corruption is complex, has various meanings, and can be perceived differently across societies.

Moreover, corruption can take many forms which include a number of different activities. The misuse of public power for private benefit and harm the public interests can be found across the three types of corruption i.e. bureaucratic, economic, and political corruption. The academic literature has shown several conditions conducive to corrupt practices. This chapter reviews the phenomenon of corruption that is widely framed by academics as a principal-agent problem and a collective action problem in which anti-corruption interventions based on the two approaches are different.

The principal-agent approach focuses on cost-benefit calculations of individuals about whether or not it is advantageous to participate in or oppose corrupt practices (Klitgaard, 1988; Marquette and Peiffer, 2015). Then, the approach emphasises transparency, monitoring, and sanctioning corrupt behaviour based on cost-benefit calculations. Based on fraud theory, even if other factors exist, corruption is less likely to occur when there is no opportunity (Gbegi and Adebisi, 2013). Based on principal-agent theory, public officials normally expect net positive corrupt gain from engaging in corruption (Klitgaard, 1988). Hence, anti-corruption interventions should remove corruption opportunity or change individuals' calculations to make them believe that the expected corrupt gain is negative. The approach assumes that corruption can be solved if anti-corruption mechanisms increase transparency, facilitate the principal's ability to monitor and sanction their agents' behaviour to hold them accountable (Marquette and Peiffer, 2015).

Managerialism and interventionism are the anti-corruption strategies based on agency theory, which aimed at reducing discretionary powers of public officials by removing corruption

opportunities and increasing the risk of detection and punishment (McCusker, 2006; Larmour and Wolanin, 2013; Brata, 2014). However, it is likely that both strategies are not the silver bullet for dealing with corruption. Although the two anti-corruption strategies are theoretically sound, they have some limitations. Previous studies show that even though managerialist and interventionist approaches are implemented, there is still room for new forms of corrupt practices.

An increasing number of scholars has argued that corruption (especially systemic corruption) should not be regarded as a principal-agent problem, but a collective action problem, which more accurately explains the phenomenon of corruption in a society where corrupt practices are widespread (Tirole, 1993; 1996, Mungiu-Pippidi, 2006; Rothstein, 2011; Carson and Prado, 2016). The latter approach assumes that actual or perceived behaviour of other people in a society influences individuals' decision to engage in or abstain from corrupt practices (Marquette and Peiffer, 2015). In a society where corruption is perceived as normal, individuals may rationally opt to participate in corrupt activities as they perceive that the others are also corrupt (Tirole, 1993; Rothstein, 2011). Therefore, the approach suggests that the success of direct anti-corruption interventions requires certain institutional pre-conditions to change individuals' levels of distrust i.e. genuine rule of law which comprises formal sanctions (legal punishment) and informal sanctions (strong civil society) (Johnston, 2002a; Mungiu-Pippidi, 2006). In other words, strengthening such institutional pre-conditions, which are regarded as indirect anti-corruption approaches, should be the first priority in a highly corrupt country.

In sum, the analysis in this chapter shows that even though corruption is a universal phenomenon, it is perceived differently across societies. What is perceived or defined as corruption depends not only on laws or formal regulations, but also informal norms, culture, ideology, consensus, or other contexts of a particular society. Corruption theories have suggested that a strategy that works in one place may not work well in the others. The effectiveness of different anti-corruption interventions, therefore, might not depend on the theory but the context (Marquette and Peiffer, 2015). The principal-agent approach, which assumes that transparency, monitoring, and sanctioning may be the key factors that determine anti-corruption success in a society where corrupt practices are considered as an isolated phenomenon, but in other societies may cause a boomerang effect (Marquette and Peiffer, 2015). Such anti-corruption effort may reinforce people's perception that corruption is widespread and thus increase reformers' sense of "corruption fatigue" (Marquette and Peiffer, 2015).

The information in this chapter serves as the basis for further study in this research regarding corruption in public procurement in Thailand. More importantly, the information provides guidance for developing a theoretical framework and hypothesis formation on the effectiveness of electronic anti-corruption interventions based on the principal-agent approach to fight against corruption in a country where collective action problems exist. The next chapter will discuss why Thailand was selected as a case study. The political, economic, and socio-cultural contexts of Thailand will be reviewed.

Chapter 3 Thailand as a Case Study of Corruption

3.1 Introduction

As mentioned in the previous chapter, corruption theories suggest that a solution which works well in one country or with one group of people might not work well for another. Recently, many scholars (Tirole, 1993; 1996, Mungiu-Pippidi, 2006; Rothstein, 2011; Carson and Prado, 2016) have argued that the principal-agent approach is ineffective in fighting systemic corruption.

This chapter argues that based on the context of Thailand, corruption in the country should be regarded as a collective action problem. However, the Thai government has used principal-agent based approaches to tackle corruption. This chapter, therefore, explains that Thailand was selected as a case study to test the effectiveness of direct anti-corruption interventions in a highly corrupt society.

Firstly, the chapter reviews Thai politics which have become deeply polarised. Secondly, the chapter presents the economic context of Thailand: a typical middle-income country with moderate levels of corruption. Thirdly, the chapter reviews the country's socio-cultural context (moral and ethical crises, patron-client relationships, and ineffective institutional balances and checks) which are also significant factors that give rise to systemic corruption. In the last section, the chapter presents an overview of corruption (the extent, forms, and characteristics of corruption) in Thailand. This section also highlights corruption in public procurement which is a high-risk area for corrupt practices and is the key focus of this study.

3.2 Justification on the Case Selection

Why Thailand? Thailand has long suffered from collective action problems, but the government has made an effort in curbing corruption by implementing anti-corruption initiatives inspired by risk-based approaches. Firstly, Thailand has a typical political context which is less likely to support the use of direct anti-corruption mechanisms. The politics have been deeply polarised through the use of color to represent a political stance (Chen, 2014; Satitniramai, 2017). The political crisis led to military coups in 2006 and 2014. After the first general election (since the 2014 coup) in March 2019 (Sofuoglu, 2019), the country remains deeply divided between supporters of the pro-military parties and supporters of the pro-democracy parties (Regan and

Olarn, 2019). Secondly, the country is a typical middle-income economy with moderate levels of corruption. Inequality in income distribution, especially low pay in the government sector, perhaps triggers corruption. Additionally, the country's socio-cultural context, including moral and ethical crises, patron-client relationships, and ineffective institutional balances and checks, are significant factors that give rise to systemic corruption. According to the Office of Public Sector Anti-Corruption Commission (PACC), a government agency in Thailand, corruption in public procurement is one of the most serious problems in the country (PACC, 2016b). To prevent and suppress corruption, the Thai government, therefore, uses electronic anti-corruption tools, a risk-based anti-corruption approach,

3.2.1 The Thai Political Context

Several scholars argue that grand corruption is the root cause of the political turmoil or the single most important force contributing to the violent overthrow of democratically elected governments (coup d'états) in Thailand (Vichit-Vadakan, 2011: 80, 2014: 536). Since 2005 (until latest coup in 2014), Thailand had been struggled to break out of the cycle of massive street protests and social instability (Sinpeng, 2014a: 158). Violent clashes between two opposing political factions: the 'Yellow Shirts' and the 'Red Shirts', which centered around a former Prime Minister Thaksin Shinawatra, were seen as the worst violence in the last century (Sinpeng, 2014a: 158). While the Yellow Shirts (anti Thaksin groups) perceive that Thaksin is "highly corrupt, manipulative, and authoritarian – a major threat to the country's democracy, ... , and national security as a whole", the Red Shirts (Thaksin's supporters) saw that the overthrowing of Thaksin's government by a military coup in 2006 was unrighteous and gave rise to the country's democratic retreat (Sinpeng, 2014a: 159). Since the previous coup d'état in 2006 until the latest coup in 2014, the country has had seven governments including two military governments (Wungaeo, 2016: 216).

Vichit-Vadakan (2011) states that Thai people are more tolerant of petty corruption but less tolerant of grand corruption. The latter, specifically policy-based corruption, provokes strong protests among the Thai middle-class in Bangkok. For instance, corruption charges and allegations against Thaksin in relation to the use of his political power to help his wife in bidding for land owned by a government agency in 2003 was one of the main causes of the country's political conflict between 2005 and 2009 (Vichit-Vadakan, 2011). In addition, like the first term in office, Thaksin's second term in 2005 also dealt with corruption scandals committed by

members of his Thai Rak Thai Party, himself, and his family members without a proper investigation and sanction (Tangsupvattana, 2012: 83).

More importantly, the sale of the Shinawatra family's share of Shin Corporation to Temasek Holdings, a Singapore government-owned investment company in 2006 for THB 73 billion (about USD 1.88 billion) caused public outrage in the country, especially among the Thai middle-class in Bangkok (Arnold, 2006; Tangsupvattana, 2012; BBC, 2019). This is because it is considered not only the sale of vital national communication assets to a foreign country but the deal was also illegally conducted as about THB 16 billion (about USD 460 million) tax-free sale (Arnold, 2006; BBC, 2019). The case brought policy-based corruption, conflict of interest, and ethical leadership to the fore (Tangsupvattana, 2012: 83). Consequently, this led to mass public protests and a military coup in 2006 (Tangsupvattana, 2012: 83; BBC, 2019).

However, Tangsupvattana (2012: 87) posits the views that the coup seems to be a political means used to eliminate the political opposition. During a coalition government led by the Democrat Party and was supported by the military took office (between December 2008 and August 2011), the government also faced corruption allegations (Tangsupvattana, 2012: 87).

Corruption might either weaken or strengthen a country's democracy. On the one hand, institutions will lose their legitimacy if they are used by authorities to obtain private benefits (Transparency International). Stephenson (2015: 110) states that in authoritarian states where corruption is rife, corruption can lead to a breakdown of the regime. On the other hand, high-level corruption can also lead to a breakdown of democracy (Stephenson, 2015: 110). Similarly, Klitgaard (2015) argues that there are many ways that people around the world fight back against corruption in their countries. On the one hand, in some countries, anti-corruption campaigners win an election as happened in Sri Lanka's presidential election in 2015 and Brazil's presidential election in 2018 (Klitgaard, 2015; Cooper, 2018a). On the other hand, people in some countries take part in protest against their democratically elected government over allegations of corruption (Klitgaard, 2015) such as the case in Thailand mentioned above.

Pye posits the view that one of the reasons that political parties in Southeast Asian countries (ASEAN), especially Thailand, cannot fully perform their functions is that they cannot effectively integrate elites with the general citizens in their countries (Chen, 2014). When Thaksin was ousted by a military coup in 2006, the political situation in Thailand worsened as Thai society was divided into the Red Shirts and Yellow Shirts (Chen, 2014) as presented earlier.

According to Satitniramai (2017: 289), the former represents “the vanguard of an emerging class of lower middle-income, market-oriented earners, the products of Thailand’s economic growth during the past two decades” while the latter has been identified as “the old established middle and upper classes, who have been well integrated economically and politically with the elites since the 1970s”. During a political crisis, Thai citizens, particularly, the middle class and educated people (the Yellow Shirts) were the ones who called for a military coup to end political unrest in the country (Chen, 2014: 201).

According to Lehman (2015: 273), “the rural Red Shirts” form the majority of voters in the country, therefore, they organised themselves into a “pro-democracy” movement as the political process seemed to pave the way to gain power. On the other hand, “the urban Yellow shirts” represent the minority of voters who are anti-democracy because their traditional power is likely to be threatened by electoral process (Lehman, 2015: 273; Satitniramai, 2017: 290). In 2013, the Pheu Thai government, that Yingluck, Thaksin's sister, had led, attempted to pass an amnesty bill (Corben 2013; Mullen, 2013) which the protestors viewed as an attempt to whitewash Thaksin's crimes (The Nation, 2015) including corruption convictions (Finch, 2013). This, again, led to political instability, strong anti-government protests in Bangkok, clashes between supporters of the two groups during 2013 – 2014, and a return of coup d'état in May 2014 (Jones, 2014; Stephenson, 2015: 110; Lehman, 2015: 273; Satitniramai, 2017: 290).

Klitgaard (2015: 16) recalled his conversation with former Democrat Party Foreign Minister Kasit Piromya in 2014 regarding how his party could challenge democratic elections. Piromya then said that:

“What has been happening in Thailand during the past ten years is similar [to what has happened in] Turkey, Tunisia, Egypt, the Russian Federation, Ukraine, Bolivarian, Republic of Venezuela, etc., namely elected governments have become illiberal, abusive; using the argument of the majority voice to overcome and ignore the concept of checks and balances, rule of law, independent media and judiciary.

People from all walks of life have come out against this majoritarianism and call for drastic reform, for a more participatory and accountable democracy. The next elections should take place after the reform. The reform process needs a transitional government.”

However, the country did not get “a transitional government” but a military government (Klitgaard, 2015: 17). As corruption allegations have become a major justification for a military coup and a return of authoritarian regimes (Tangsupvattana, 2012: 71; Sinpeng, 2014b: 536),

fighting corruption is one of the major campaigns of the military government led by Prayuth Chan-ocha (The Secretariat of Cabinet, 2015, 2016, 2017; Tanakasempipat and Thepgumpanat, 2018). However, in recent years, the government has suffered from corruption charges (Chachavalpongpun, 2018). Top government leaders and some public officials faced an investigation by the country's public anti-corruption organisations and anti-graft agency (Chachavalpongpun, 2018; Cooper, 2018b; Tanakasempipat and Thepgumpanat, 2018).

According to Tanakasempipat and Thepgumpanat (2018), corruption allegations threaten the stability of the government. Chachavalpongpun (2018) also states that the military government is facing a crisis of public trust as both domestic and international polls revealed that the respondents perceived that "corruption is as endemic as ever". For instance, the perceived levels of public sector corruption in Thailand, based on the Corruption Perceptions Index (CPI), have stayed relatively high in recent years (Figure 3-1). The index reflects the lack improvement in the level of public sector corruption thus far. Also, it implies that the government has been perceived as less successful in combating corruption even though the country has undergone regime changes and experienced short periods of democracy.

On March 24, 2019, Thailand has the first general election since the coup in 2014 (Sofuoglu, 2019). The election is considered a battle between *the pro-military parties* that support junta cheif Prayuth Chan-ocha to remain prime minister and *the opposition pro-democracy parties* with the aim of ending the country's cycle of coup d'etats and restoring democracy (Regan and Olarn, 2019). The postponement in announcing the election results and confusion over the Election Commission's calculation of party-list seat allocation sparks controversy, leaving the country as polarised and struggle between the pro-military and its opponents (Bangprapa, 2019; Jaipragas and Thongnoi, 2019; Regan and Olarn, 2019; Sofuoglu, 2019).

Some politician observers posit the views that in the post-election period, the country seems to sink deeper into political chaos and at risk of violent conflicts (Yonpiam and Boonlert, 2019). On June 5, 2019, Prayuth Chan-ocha was chosen by Parliament to be a prime minster of a cilivian government (Paddock, 2019). The country's prime minister was elected in a joint vote of the house of representatives and the senate in which the latter was appointed by the military government (Deutsche Welle, 2019; Thepgumpanat and Wongcha-um, 2019). Critics see that the results lead to the extension of the military dominance or the semi-democratic system in the country (Aljazeera, 2019).

While some believe that the new government will survive because the military will not be willing to give up its political power easily (Johnson, 2019), the others see that the coalition government may end up with an early dissolution of Parliament and new general elections (Paddock, 2019). Prayuth's 19-party coalition government (Thepgumpanat and Wongcha-um, 2019) is relatively fragile as it is likely that the parties will take advantage of being a government party to advance their interest (Paddock, 2019). Additionally, there is a possibility of political infighting within the government (Thepgumpanat and Wongcha-um, 2019).

In sum, political influence causes conflicts among people in Thai society. Based on collective action theory mentioned in Chapter 2, the Thai political context or the political instability since 2005 until present seems not to create an environment that enables strong civil society and thus may impede the effectiveness of direct anti-corruption interventions. The next section will present an overview of economic context of Thailand. The section highlights why some Thai public officials may rationally opt for corruption according to an economic perspective.

3.2.3 The Thai Economic Context

Thailand has been categorised as an upper-middle income country by the World Bank since 2011 (World Bank, 2011). Corruption in the country, however, is pervasive and deeply rooted in its culture (Vichit-Vadkan, 2011). Table 3-1 below presents gross national income per capita (GNI) of Thailand and its neighbouring ASEAN countries including Singapore, Malaysia, Indonesia, Myanmar, and Cambodia between 2012-2017.

| Country Name | Income Level | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------|--------------|--------|--------|--------|--------|--------|--------|
| Singapore | High | 51,110 | 54,730 | 56,370 | 54,020 | 52,350 | 54,530 |
| Malaysia | Upper-middle | 10,150 | 10,760 | 11,010 | 10,450 | 9,860 | 9,650 |
| Thailand | | 5,520 | 5,720 | 5,760 | 5,710 | 5,700 | 5,950 |
| Indonesia | Lower-middle | 3,570 | 3,730 | 3,620 | 3,430 | 3,410 | 3,540 |
| Myanmar | | 1,140 | 1,230 | 1,240 | 1,210 | 1,200 | 1,210 |
| Cambodia | | 880 | 970 | 1,020 | 1,060 | 1,140 | 1,230 |

Table 3-1: Gross National Income per Capita (GNI), Atlas Method (Current US\$), of the Six ASEAN Countries between 2012-2017 (Source: World Bank, 2019a; 2019b; 2019c; 2019d; 2019e; 2019f; 2019g)

Singapore is categorised as a high income economy (World Bank, 2019f). The country's GNI per capita at USD 53,852 on a six-year average is much higher than the other countries in this region. Malaysia and Thailand are both upper-middle income countries (World Bank, 2019d,

2019g). However, Thailand where the GNI per capita is at USD 5,727 on a six-year average is much lower than the GNI per capita of Malaysia (USD 10,313 on a six-year average). Indonesia, Myanmar, and Cambodia are classified as a lower-middle income country (World Bank, 2019a, 2019c, 2019e). The three countries' GNI per capita on average are USD 3,550, USD 1,205, and USD 1,050, respectively.

According to the corruption perception index (CPI), Thailand has a relatively high perceived level of corruption. Figure 3-1 below shows how Thailand was positioned relative to the other ASEAN countries between 2012 and 2018.

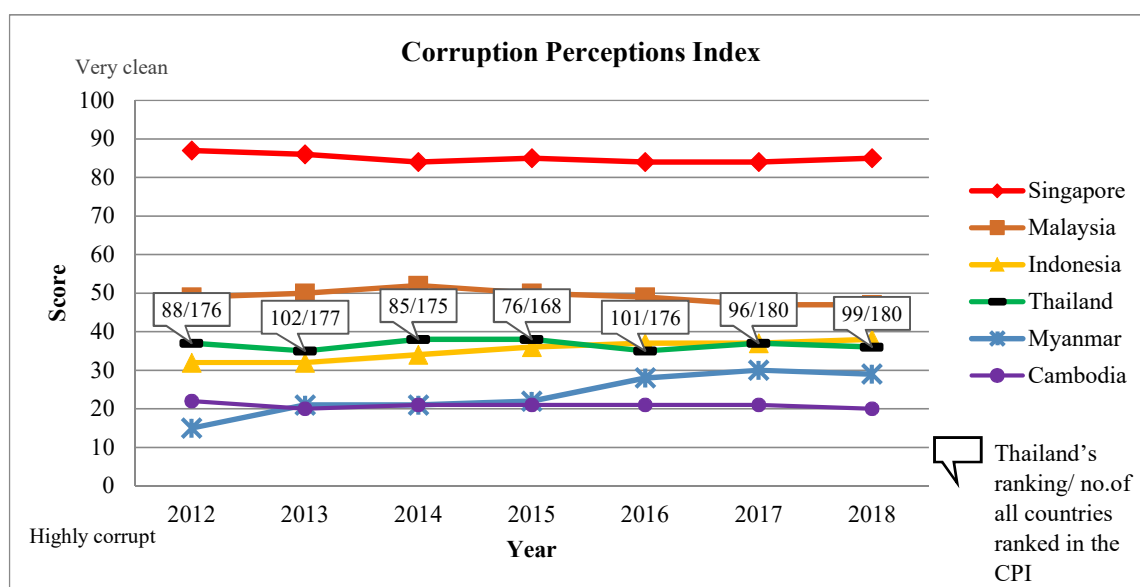


Figure 3-1: The Perceived Levels of Public Sector Corruption (CPI) in the Six ASEAN Countries in 2012-2018
(Source: Transparency International, 2018d)

Among the ASEAN countries, Singapore, with scores around 85 on average, is the best performer in the region. Malaysia makes it around the midpoint of the scale on average, with scores between 47 and 52. Thailand and Indonesia are in the middle rank, scoring between 30 and 40, and are placed among the more corrupt countries. The bottom two are Myanmar and Cambodia, where the scores are lower than 30.

Since 2012, the CPI scores for Thailand have not significantly changed and have stayed below 40 points on the 100-point scale. The country has been consistently ranked in the lower half of the index and perceived as a highly corrupt country. As the CPI is well known internationally, many countries including Thailand take the CPI seriously (Vichit-Vadakan, 2011: 80). National Anti-Corruption Commission (NACC), the main public anti-corruption agency in Thailand aims

to improve Thailand's score significantly with a goal of 50 (Vichit-Vadakan, 2011: 80). Importantly, this implies that the country treats the numbers as if it measures actual level of corruption because it can affect the government's reputation for transparency and efficiency.

According to Turner (2018: 224), there is a rough correlation between the level of perceived corruption and the GNI per capita. The poorer countries tend to be more corrupt than the richer countries (Turner, 2018: 224). For instance, Myanmar and Cambodia are the two poorest ASEAN countries according to the GNI per capita and are ranked as having the highest perceived levels of corruption according to the CPI. On the other hand, Singapore is placed at the high-income level country (World Bank, 2019f) and is among the least corrupt countries in the world (Transparency International, 2018d).

However, the correlation between the GNI per capita and the CPI is not always the case. Thailand is classified as an upper-middle income country (World Bank, 2019g) while Indonesia is a lower-middle income country (World Bank, 2019a). Based on the correlation, Thailand should have lower perceived level of corruption than Indonesia. However, Thailand is perceived to have the same level of corruption as Indonesia as there is not much difference between the two countries' CPI scores. Specifically, the average CPI score for Thailand and Indonesia were 36.6 and 35.1, respectively. Even though the CPI does not measure corruption per se, the index provides the overall picture of the perceived level of corrupt practices (Dahl, 2012: 162) that Thailand is a typical upper-middle income country with relatively high levels of corruption.

Thailand is an upper-middle income economy, but Tangsupvattana (2012: 91) points out that majority of the Thai people are poor and their income is only enough to meet basic needs. Public officials receiving bribes has been a part of Thai culture and low pay provides incentives for the Thai officials' corrupt practices (Warsta, 2004). The study of Rathprasert (2016) recently found that low salary was one of the main causes of corruption in the Thai bureaucracy. Importantly, if it is too small to survive, some officials perhaps do not refrain from supplementing their income by receiving bribes (Warsta, 2004; Tangsupvattana, 2012: 92).

However, the perspective that inadequate pay forces public officials to participate in corrupt activities may not always be true. It does not necessarily mean that public officials with sufficient or high income will not be corrupt (UNODC, 1999: 6; Tangsupvattana, 2012: 92). Even though previous studies (UNODC, 1999: 6; Warsta, 2004; Tangsupvattana, 2012: 92; Rathprasert, 2016), point out that insufficient salaries lead to corruption, the study conducted by

Rathprasert (2016) suggests that increasing salary may not be the solution to the problem in Thailand as long as the officials holding political or authoritative power are still struggle with greed and immorality. The next section will present the Thai socio-cultural context which seems to facilitate endemic corruption in the public and private sectors in Thailand.

3.2.3 The Thai Socio-cultural Context

This section highlights ethics and morality, patron-client relationship, and institutional checks and balances as three key social and cultural aspects of Thailand that are attributable to systemic corruption. Firstly, according to Vichit-Vadakan (2011: 79) and Tangsupvattana (2012: 93), ‘ethics and moral crises’ are the serious problems facing Thailand today and these are also the significant causes of corruption. Corruption is perceived as a disease (Vichit-Vadakan, 2011: 79), but bribery has become common in Thai people’s life (Tangsupvattana, 2012: 93).

According to Rathprasert (2016), corruption in the Thai bureaucracy might be regarded as a rationalisation problem. Returning briefly to Cressey’s fraud theory presented in Chapter 2, corruption should be wrong but people may invent rationalisations or make excuses to convince themselves that what they are doing is not wrong. Thus, rationalisations are one of the factors conducive to corrupt behaviours. For instance, as mentioned in the previous section, public officials with insufficient pay are likely to be corrupt (UNODC, 1999: 6; Warsta, 2004). Importantly, Warsta (2004) states that these corrupt officials, however, may feel that being corrupt is not morally wrong. Poverty is used as an excuse to be corrupt.

Moreover, previous research and several domestic polls signify that there is a moral crisis in Thailand. For example, the study conducted by Phongpaichit and the Office of Civil Service Commission in 2001 found that business persons in Thailand believed that bribery was the key factor that contribute to business success (Tangsupvattana, 2012: 89). Furthermore, an opinion poll on attitudes of young Thais revealed that more than 80 percent of the participants perceived that being overly honest was not good as they could get taken advantage of (Tangsupvattana, 2012: 93). In addition, according to a survey by the Assumption University Research Center (ABAC Poll) in 2012, more than 60 percent of the survey participants could accept government corruption if they or the country benefitted (UNDP, 2012). Similarly, Witayakorn Chiengkul (honorary dean of the College of Social Innovation at Rangsit University in Thailand) states that for some people, “even if the government is corrupt but if it is good in economic management, it is acceptable” (Tangsupvattana, 2012: 94).

In Thailand, corruption is sometimes acceptable because it is considered “a sign of gratefulness” (Tangsupvattana, 2012: 93). For instance, the use of public power to favour cronies is perceived as “a symbol of gratitude” (Tangsupvattana, 2012: 93) rather than corrupt practices. Such perception creates conditions that facilitate systemic corruption in the country as it is tolerated by the key stakeholders in society i.e. elites, politicians, public officials, and civil society. In Quah’s research (2011: 290), Laird criticises corruption and Thai public officials’ rationalisations as follows:

Perhaps the biggest hurdle to solving the corruption problems is the attitude of the public and of officials (including police) that accepting bribes [is] not corruption as long as it did not cause trouble anyone ... By and large, Thais still see bribes given to officials as being *sin nam jai*, or gifts of goodwill, which are acceptable or tolerable. At the same time, officials rationalize that since they do not request the bribes overtly, there is no moral or social wrong incurred in receiving gifts which are “willingly” presented to them.

Secondly, Thailand’s ‘hierarchical society’ and ‘patron-client relationships’ are another socio-cultural factors conducive to the pervasiveness of corruption in the country. According to Vichit-Vadkan (2011: 85), Thailand's traditional beliefs, cultural values, and social structure “evolve around personal criteria rather than universalistic principles.” The social structure is a highly stratified and hierarchical one (Vichit-Vadkan, 2011: 85). Specifically, social status and/or age are the factors linked to the way in which Thai people behave toward others (Hays, 2014c). The older or people with higher social status normally get more respect than the younger or people with lower positions (Hays, 2014c). This reflects “undemocratic structures” (Hays, 2014c) and social inequality in Thailand.

The effect of hierarchical society is probably reflected in Thais’ conflict-avoidance behaviours. Generally, Thai people tend to avoid conflicts (Hays, 2014c) and not interfere in other people’s business (Hays, 2014b) if it does not directly concern them. Misconduct in the workplace seems not to be reported as they perceive that not only reporting is not their responsibility, but it is also not worth the effort (Hays, 2014b). Whistleblowers could be seen as a betrayal and are at risk of being isolated and losing their job (Hays, 2014b). According to Hays (2014b), a problem of Thai society is that people showing too much concern on loyalty in individuals and overlooking principles. Individuals tend to stay silent to protect their personal interest rather than exposing corrupt practices to prevent wrongdoings or to protect the public interest (Hays, 2014b).

In addition, ‘patron-client relationships’ form the structure of Thai society and drive endemic corruption. This particular kind of personal relationships is common in Thai society, particularly, in the bureaucracy and military (Hays, 2014a). According to Vichit-Vadakan, (2011), the patron can provide their client with protection and connection while the client is expected to support their patron either in the form of money or payment-in-kind in return. Patron-client relationships involve three parties: politicians, public officials, and business persons (Tangsupvattana, 2012: 89, 92). Their personal relationships and connections result in nepotism, cronyism, and favoritism (Tangsupvattana, 2012: 92). In other words, illegal favours are granted by politicians/public officials (the patrons) to their family members, friends, and others (the clients).

Tangsupvattana (2012: 89, 92) also states that in general, corruption in government mega projects starts from politicians/public officials receiving bribes from businessmen. However, the mission would not be accomplished if there is no cooperation from the officials at the beginning. This signifies that the patron-client relationships are important for business success in Thailand. On the one hand, there are some Thai people turned politicians (Tangsupvattana, 2012: 94). On the other hand, some Thai politicians provide their relatives high social positions (Hays, 2014b). This is not to serve the people or public interest but their personal and/or crony interest (Tangsupvattana, 2012: 94).

Despite an assimilation of Western culture, patron-client relationships not only have strong influence in the daily life of Thai people (Vichit-Vadakan, 2008: 306) but also contribute to a lack of transparency and corrupt practices (Vichit-Vadakan, 2011). In addition, Vichit-Vadakan (2008: 306) found that in Thailand,

“[There is] little understanding or appreciation of basic fundamental principles in democratic values like equality, human rights, rights to participate, for instance. Similarly, the principles of contemporary ‘good governance’ principles are not getting through easily into the mindset of most Thai people.”

According to Quah (2011: 290), people's corruption tolerance is a significant barrier to implementing successful anti-corruption policy in Thailand. This is in accordance with the collective action problem, which was discussed in Chapter 2, according to which in a society where corruption is pervasive or corrupt practices are the expected behaviour, institutional pre-

conditions for effective implementation of anti-corruption interventions are required (Johnston, 2002a; Mungiu-Pippidi, 2006; Marquette and Peiffer, 2015).

In addition to the moral crisis and patron-client relationships, Thai's 'system of checks and balances' or the function of watchdog or whistleblowing, one of the key focuses in this study, seems not to be effective enough to support the fight against corruption. In fact, the legal frameworks in Thailand are relatively strong (Ahuja, 2010; Ramirez, 2015). Certain corrupt practices by public officials e.g., demanding or accepting bribes can incur sentences of between five to 20 years or life imprisonment and a fine ranging from THB 100,000 to THB 400,000 (approximately GBP 2,300 - 9,200), or even the death penalty (Ramirez, 2015). However, Kanokkan Anukansai, an assistant of the secretary general of Transparency Thailand said that "The regulatory framework in Thailand is quite good but whether it is put into practice is a different issue" (Ahuja, 2010).

Firstly, independent public agencies in Thailand are unable to operate at their full potential because of internal and external obstacles (Tangsupvattana, 2012: 95). According to Tangsupvattana (2012: 94), the external problems are that the operation of the agencies are in the shadow of threatened interest groups and political parties interventions. For instance, recruiting key positions of independent public agencies is usually intervened by politicians (Tangsupvattana, 2012: 95). In addition, there are legal loopholes or "delay tactic" in which politicians use it against the operation of independent agencies (Tangsupvattana, 2012: 95).

Internal problems also prevent independent public agencies to perform their tasks properly. According to Ramirez (2015), the prosecution process in Thailand takes a long time. On the one hand, this may result from the fact that many officials in independent agencies' lack of a sense of urgency and the agencies are faced with inflexible rules (Vichit-Vadkan, 2011: 91). On the other hand, Tangsupvattana (2012: 95) points out that independent agencies "have excess responsibilities but not enough authority". For example, the main duties of the NACC are to investigate and inspect corruption that involve high-ranking public officials and politicians (NACC, 2014). However, the agency has less power to launch prosecution (Tangsupvattana, 2012: 95). Such circumstances not only result in a number of cases left uninvestigated each year (Tangsupvattana, 2012: 95) but also possibly create and maintain an environment that enables public officials to be corrupt (Ramirez, 2015). According to Tangsupvattana (2012: 95), as the external and internal problems exist, corrupt practices in the public sector in Thailand therefore seem not to lower even though independent anti-corruption organisations are in place.

In addition to independent public agencies, the media plays an important role in institutional checks and balances. In Thailand, the level of freedom and independence of the media is limited. The Reporters Without Borders (RSF), an international organisation that provides information about the countries' press freedom, annually published the World Press Freedom Index, evaluating the state of journalism across 180 countries (RSF, 2019c). In the 2019 Index, top five countries are all European countries i.e. Norway, Finland, Sweden, Netherlands, and Denmark (RSF, 2019b). The bottom three countries are Eritrea, North Korea, and Turkmenistan (RSF, 2019c). Southeast Asian countries, Thailand's neighboring countries, are also placed in the low-ranking such as Malaysia (123th), Indonesia (124th), Singapore (150th), and Vietnam (176th) (RSF, 2019b).

For Thailand, the country ranked between 130th and 142th place in the last seven years (between 2013 and 2019) (RSF, 2019a). According to the RSF (2019a), the Thai military government spies on bloggers and journalists. Media criticism of the government is vulnerable to reprisal made by strict laws and restrictions (RSF, 2019a). The RSF points out that such surveillance is the reason of the country's low-ranking in the World Press Freedom Index (Itthipongmaetee, 2018). Therefore, the media is likely to struggle for freedom of expression and less likely to operate at their full potential.

Civil society (the private sector) also plays a critical role in societal development. However, civil society in Thailand is rather weak. According to Tangsupvattana (2012: 96), witness protection laws and the perception of high cost in reporting corruption such as considerable time spending and difficulties in making a report and self-revelation as witness are some of the challenging issues faced by the public sector. Leaving aside the effect of hierarchical society, it is likely that civil society's influence on the fight against corruption has still not yet reached its full potential.

In sum, the Thai political, economic, and socio-cultural contexts presented above signify that corruption in the Thai society is more likely to be described as a collective action problem. The country's political polarisation has been growing since 2005, from the political struggle between the Yellow Shirts and Red Shirts to the recent struggle between the pro-military parties and the opposition pro-democracy parties. This suggests that the country's politics seem to be getting more and more polarised. Low salaries in the public sector may also be another significant factor that facilitate corrupt practices in the public and private sectors. Moreover, Thai's system of checks and balances seems not to be independent enough and effective. Independent anti-

corruption agencies, the media, and the private sector are all face some difficulties to perform their role properly. Hence, it is more likely that the context of Thailand creates conditions that give rise to systemic corruption. The next section will present an overview of corruption problems and corruption in public procurement in Thailand.

3.2.4 Corruption in Thailand

According to Mana Nimitmongkol, secretary-general of the Anti-Corruption Organisation of Thailand, corruption in Thailand is unlikely to be easily dealt with and eliminated (The Nation, 2017). This is apparent from the data on the number of complaints submitted to the Office of Public Sector Anti-Corruption Commission³ (PACC) from fiscal year 2008 to 2017 as presented in Figure 3-2 below.

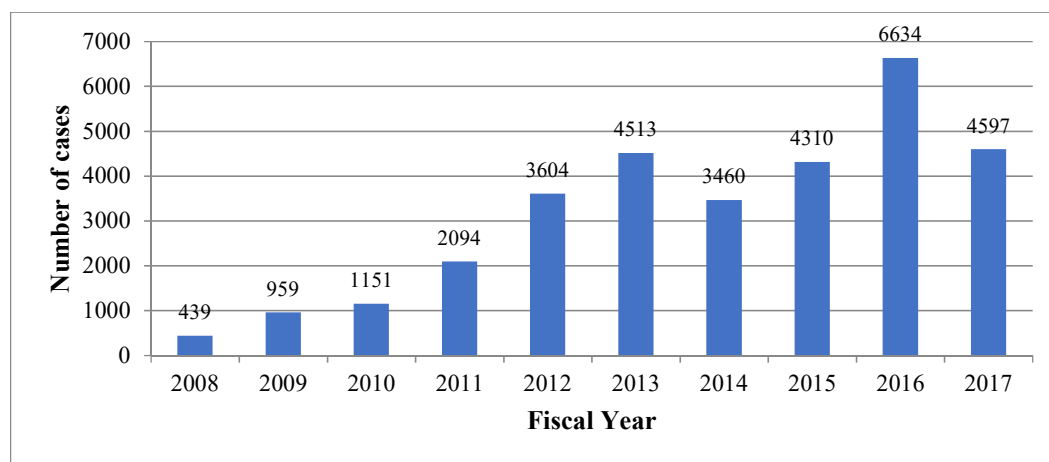


Figure 3-2: Number of Public Officials Misconduct Reported to the PACC (Fiscal Year 2008-2017)
(Source: PACC, 2018)

The number of complaints made against corruption in public sectors has increased tenfold since 2008. Overall, the country has not experienced substantial reduction in corruption. However, this could mean that people are making more complaints because they increasingly know about the PACC.

As previously mentioned, corruption in Thailand ranges from petty to grand corruption and occurs in several forms (Vichit-Vadakan, 2011: 79). In Thailand, petty corruption or small

³ PACC is an anti-corruption agency in Thailand under the Ministry of Justice (PACC, 2016a). Their duties are to investigate and inspect lower-ranking state officials i.e. those from the Division Director level downward who are accused of corruption in the public sector (PACC, 2016a).

amounts of money is perceived as part of ‘service charges’ to obtain bureaucratic services while grand corruption is mostly found in government mega projects (Vichit-Vadakan, 2011: 79). More specifically, there are various forms of corruption in public office.

In 2017, Prayong Preeyachitt, the Secretary-General of PACC, states that in the last few years his organisation received approximately 2,000–3,000 complaints per year about corruption (Manager Online, 2017). Table 3-2 below summarises the types of public sectors corruption and the number of cases reported to the PACC during October 2014 – August 2016. The statistics show that government projects and public procurement (ranked second) are a high-risk area for corruption among politicians, public officials, and private firms.

| Officials misconduct | Number of cases reported | Percentage |
|---|--------------------------|--------------|
| Acts of omission | 2,754 | 32.4% |
| <i>Corruption in government projects/ procurement</i> | <i>1,477</i> | <i>17.4%</i> |
| Abuse of public power and authority | 1,006 | 11.8% |
| Offences against property | 533 | 6.3% |
| Fraudulent behaviour | 265 | 3.1% |
| Prosecutorial misconduct | 219 | 2.6% |
| Offences relating to documents | 173 | 2.0% |
| Election misconduct | 145 | 1.7% |
| Disciplinary misconduct | 127 | 1.5% |
| Embezzlement | 85 | 1.0% |
| Offenses against public land and natural resources | 43 | 0.5% |
| Extortion | 36 | 0.4% |
| Others | 1,635 | 19.2% |
| Total | 8,498 | 100% |

Table 3-2: Types and Number of Public Officials Misconduct Related to Corrupt Activities Reported to the PACC since October 2014 to August 2016 (Source: PACC, 2016b)

In accordance with the statistics of the types of public sector corruption collected by the PACC (Table 3-1 above), it was reported that corruption by public officials in public procurement is one of the most problematic factors for doing business in Thailand. A study of the set of institutions, policies, and factors that drive sustainable long-term economic growth and prosperity (Global Competitiveness Report, 2016-2017) conducted by the World Economic Forum which surveyed 258 business leaders in Thailand revealed that illegal diversion of public funds and public officers practicing favouritism to well-connected firms when making decision on government contracts frequently occur (World Economic Forum, 2017: 287). The survey

also showed that it is common to make irregular payments or pay bribes during the process of awarding procurement contracts (World Economic Forum, 2017: 287).

Additionally, a study of the business environment (the Enterprise Surveys) by the World Bank Group, which interviewed business owners and top managers in 1,000 firms in Thailand during 2015 – 2016, showed that more than 40 percent of companies expect to give gifts or make informal payments in order to secure government contracts in Thailand (World Bank, 2016). As presented previously in Chapter 1, the University of the Thai Chamber of Commerce in Thailand conducted a poll in 2017 and revealed that extra payments amounting to 5-15 percent of the contract value on average were needed to pay corrupt public officials and politicians when bidding on government contracts (Khaosod, 2018). According to Vichit-Vadakan (2011: 79), losses through grand corruption in some government mega projects range between 10-30 percent of the total project value. In addition, it was reported that the average percentage of bribes paid in December 2017 is equal to the average of the percentage the firms paid before the 2014 coup (Khaosod, 2018).

As the government currently has a number of major large-scale investment projects, businesses and public officials try to find loopholes in order to seek bribes and win the auction (Khaosod, 2018). The cost of the damage caused by corrupt practices during 2018 is estimated at approximately THB 66.271 – 198.814 billion (approximately GBP 1.472 – 4.418 billion), pushing the GDP down by 0.41 – 1.23 percent (Khaosod, 2018).

The process of corruption in government procurement and its negative effects stated earlier in this chapter imply that government activities generate calls to demonstrate accountability and to show that it is working to spend public money wisely and responsibly. Thus, appropriate anti-corruption mechanisms are needed.

However, the Thai government and public anti-corruption agencies have utilised ICTs to serve the public with online services. The government has announced a policy statement in sustaining good governance and the fight against corruption in the public sector (The Secretariat of Cabinet, 2015, 2016, 2017). Specifically, the government plans to use digital technology to modernise its administrative services and adjust regulations to increase transparency. The government expects that the plans will improve its administration of state affairs and make services more responsive and proactive to the public (The Secretariat of Cabinet, 2015, 2016, 2017).

The Thai government has implemented several anti-corruption approaches to curb corruption but this study focuses on ‘e-procurement systems’ and ‘e-whistleblowing platforms’. The two anti-corruption approaches are regarded as a direct anti corruption intervention based on principal-agent theory. Specifically, the two mechanisms are developed to tackle corruption opportunities. The use of e-procurement systems aims at preventing corrupt practices during the process of public procurement (managerialism) while the use of e-whistleblowing platforms is to increase the chance of being caught (interventionism). The next chapter will present e-government initiatives, an anti-corruption approach used by the Thai government to fight against corruption in public procurement.

Chapter 4 E-government Initiatives for Tackling Public Procurement Corruption

4.1 Introduction

This chapter focuses on e-government initiatives for tackling public procurement corruption. The chapter is organised into four main sections. Following this introduction, the chapter reviews corruption in public procurement in general. Section Three reviews e-government, an anti-corruption initiative that the Thai government has implemented to fight against corrupt practices. Specifically, this study focuses on two anti-corruption interventions based on principal-agent theory to tackle corruption opportunities: (i) electronic procurement systems and (ii) electronic whistleblowing platforms. In this section, I also present a gap in the research by identifying some countries that use e-procurement and e-whistleblowing and explaining why these studies might not provide a good test about the effectiveness of the two anti-corruption mechanisms. Guided by theories of corruption and anti-corruption initiatives (Chapter 2) and corruption in the Thai context (Chapter 3), the last section in this chapter presents research questions, theoretical framework, and hypotheses of this study.

4.2 Corruption in Public Procurement

Public procurement refers to a government's purchase of goods, services, and works from third party suppliers in order to carry out its functions and provide public goods and services to citizens (Office of Government Commerce, 2008: 3 UNODC, 2013: 1). The purchases range from standard products and services such as stationery, IT equipment, consultancy services, etc. to the more complex ones such as infrastructure construction, and private financing initiatives, etc. (Office of Government Commerce, 2008: 3; UNODC, 2013: 1).

According to the Worldwatch Institute (2003: 114) and Transparency International (2015), corrupt officials use limited public resources to financially benefit themselves rather than the public, for example, by giving precedence to new mega projects over other health, education, or infrastructure maintenance expenditure. By making a collusive agreement with selective bidders (the client), the agents engaging in such corrupt activities undermine fair markets and competition.

Corrupt practices can occur in three main phases of the procurement process. These are: the procurement planning and budgeting phase (the pre-bidding phase), the procurement solicitation and selection process phase (the bidding phase), and the contract award and performance stage (the post-award phase) (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008; OECD, 2016: 9).

In the pre-bidding phase, a procuring government agency has to identify the need (goods, services, or works) and the budget (Matechak, 2002: 2). Corruption will arise when public officials accept bribes from bidders in exchange for recommending the bidders' goods or services to their institution (Goldmann, 2010: 61), and/or making specifications that favour or disfavour specific bidder companies to limit competition (UNDP, 2008; Kalubanga et al., 2013: 20). Dishonest public officials typically make false statements on current or future requirements of their institution, falsely inflate actual requirements, or falsely report on faulty equipment in such a way that allows low quality products or services to pass, thereby creating an opportunity for the purchase of unnecessary items (Matechak, 2002: 2; UNDP, 2008). Such falsehoods affect technical specifications and direct evaluation processes (BBG, 2008: 4). In addition, budget requests will be set artificially high or much higher than the standard or market price so that the excess can cover kick-backs (Matechak, 2002: 2; UNDP, 2008).

The main process during the procurement solicitation and selection phase is to gather information, request documents and proposals from suppliers, and carry out evaluations (Matechak, 2002: 2). Corruption can occur in this stage in such a way that the pre-selected bidders are treated favourably (BBG, 2008: 4). Such bidders may receive more information than their competitors or information that should not be made public after the procurement requirement was announced (BBG, 2008: 4). In an evaluation process, the criteria to evaluate the tenders might also be misapplied, unclear, or amended later in order to benefit the pre-selected suppliers (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008). In the absence of transparency and control, several corrupt techniques may be used, such as improper acceptance of late or incomplete proposals, misaddressing documents, excluding qualified bidders, or rejecting any legitimate proposal (Matechak, 2002: 2; BBG, 2008: 5; UNDP, 2008; Kalubanga et al., 2013: 21). On the other hand, limiting proposal submission time could ensure that only a pre-selected supplier who received information in advance can submit a complete and legitimate proposal (Kalubanga et al., 2013: 21).

More seriously, even though transparency and control measures are put in place, corruption can still occur in this phase. Larmour and Wolanin (2013: xix) posit that, according to procurement

rules, at least three offers proposed by different bidding companies are required to ensure that public money will be spent efficiently and misconduct or collusion will be prevented. However, it is possible that the documents from two bidders could be counterfeit, unknown to the auditors (Larmour and Wolanin, 2013: xix). This means that the audits, however unintentionally, help to cover such corrupt activities (Larmour and Wolanin, 2013: xix) and let only a single genuine bid pass to the last procurement phase.

Corruption in the contract award and performance phase is more likely to go unnoticed as this stage is less regulated than the previous two stages (BBG, 2008: 5). Pre-selected bidders could submit unrealistically low cost proposals and aim to amend the contracts and increase prices after the contract is awarded, or they could propose unrealistically high quality products in order to be selected and then substitute lower quality ones later (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008). It is also possible that the details in contracts such as specifications, quantity, delivery schedule, terms of payment turn out to be different from the bid winning proposal (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008). Moreover, the level of oversight in this phase is more likely to be minimal (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008). Relevant documents could be lost or destroyed intentionally to hide information related to corruption (Matechak, 2002: 2; BBG, 2008: 4; UNDP, 2008).

4.3 Anti-Corruption Mechanisms in Public Procurement: E-government

ICTs and digital media are increasingly becoming more embedded into people's everyday lives and are used to support government operations. According to Clarke (2014: 395), digital media and communications such as the Internet and social media networks are not only used for the purpose on sharing government information but also for public service delivery and democratic engagement. More importantly, a number of previous studies and research papers point out that e-government can play an important role in curbing corruption (UNDP, 2006; Arpit, 2012; Mistry and Jalal, 2012).

E-government is the use of ICTs by government agencies to serve their citizens, businesses, and other government agencies by using online services (McClure, 2000; UN, 2015). Generally, e-government lowers the transaction costs of government agencies' main operations, speeds up information and service delivery to a wider group of citizens (McClure, 2000) and also facilitates citizens' engagement (Hasani, 2013). A well thought-out e-government plan can

improve government accountability, transparency, efficiency (UNDP, 2006; McClure, 2000; Arpit, 2012; UN, 2015), and inclusiveness and build up public trust (UN, 2015). In addition, e-government could help to reduce corruption in public procurement (UNDP, 2006; Arpit, 2012; Hasani, 2013).

4.3.1 Electronic Procurement Systems

E-procurement is illustrative of preventive or managerialist anti-corruption strategies. According to the World Bank (2003), e-government procurement is defined as “the use of information and communication technology (especially the Internet) by governments in conducting their procurement relationships with suppliers for the acquisition of goods, works, and consultancy services required by the public sector.” The system also allows “suppliers to manage and communicate the fulfilment of those purchase orders” (Pani, 2007).

A number of researchers point out that e-procurement improves transparency and accountability (Lanvin, 2005: 66) which, therefore, results in the reduction of corruption in the public procurement process (Neupane et al., 2012b: 304-334; OECD, 2016). According to OECD (2016), e-procurement through transparency enables public access to procurement information, reduces face-to-face interaction among the key stakeholders involved in the procurement process, i.e. procuring officers and bidding firms, and increases competition (OECD, 2016: 22).

ADB/OECD (2008: 111) also suggests that the three most significant benefits of e-government procurement are that it helps government agencies to improve transparency, increase competition, and increase efficiency. It has been argued that e-procurement enhances transparency and accountability and thus increases fair competition in public procurement (Hardy and Williams, 2008: 156; Hanna, 2009: 273; OECD, 2010b: 156; Ware et al., 2011: 96; Luijken and Martini, 2014: 2; Zhang, 2015: 252). Moreover, e-procurement helps avoid direct contact between public officials and bidders (OECD, 2010b: 156; Chantanusornsiri, 2015). Such advantages mean that e-procurement systems have the capacity to prevent and reduce the risk of corruption (Luijken and Martini, 2014).

In addition, e-procurement makes procurement procedures transparent and increases access to detailed information on procurement for a wider group of potential bidding firms. It encourages citizens and civil society to act as a watchdog and allows them to detect any suspicious corrupt activities, as they can keep track of the public officials' activities and transactions at any time.

Moreover, e-government procurement could increase the agent's moral cost in which once their corrupt activities are exposed they might lose their jobs, pay a penalty, or pay other non-measurable moral costs that reflect prevailing cultural or social norms (Klitgaard, 1988: 69). Hence, e-government procurement has the capacity to reduce or prevent the misuse of the discretionary power of public officials and discourage them from engaging in corrupt activities.

Neupane et al. (2012a, 2014) conducted a study of the relationship between the perceived potential benefits of e-government procurement and the willingness to adopt e-government procurement to combat corruption in public procurement in Nepal. They found that the perceived potential benefits of e-government procurement - its usefulness, ease of use, trust between government authorities and bidders, capability in lowering the level of monopoly of power, capability in lowering levels of information asymmetry, and capability in increasing transparency and accountability - have positive and significant relationships with an intent to implement e-procurement technology as anti-corruption tools in public e-procurement. Neupane et al. (2014) then recommend that governments in developing countries can adopt e-procurement as an anti-corruption mechanism to curb corruption in public procurement.

As was mentioned in Chapter 1, governments have adopted e-procurement systems as a part of e-government to fight corruption in several countries such as the Czech Republic (Chvalková and Skuhrovec, 2010), Albania (Kashta, 2012), Indonesia, and India (Lewis-Faupel et al., 2014). However, these previous studies highlight the success of e-procurement system differently.

Firstly, corruption can be found in different stages during the bidding phase e.g., submission and evaluation phases. However, the success of e-procurement in previous research mostly highlighted only a particular stage. For instance, the success of e-procurement is supported by evidence that e-procurement through greater transparency lowers the risk of corruption in the submission stage as it increases competition or the number of bidders in Russian public procurement (Balsevich et al., 2011: 9; Luijken and Martini, 2014: 6) and in Albania (Kashta, 2012; Luijken and Martini, 2014: 6). However, this does not guarantee freedom from corruption in the later phases, after submitting the tenders.

Secondly, where procuring agencies can save more on their budget or receive a better quality of goods or services provided by the bid winners through e-procurement systems, this may occur in the context of no competition during the bidding phase. On the one hand, previous studies found that e-procurement through more transparency reduces the costs of the parties involved

in procurement, for example, the ChileCompra e-procurement in Chile and e-procurement system in Albania (Bertot et al., 2010: 266; Luijken and Martini, 2014: 6). On the other hand, a previous study in India and Indonesia about how e-procurement can improve infrastructure provision suggests that e-procurement does not help reduce the price paid by the government but it can encourage more higher quality contractors that live in different locations to where the project takes place to bid for the projects (Lewis-Faupel et al., 2014). However, whether e-procurement can improve cost savings or improve project quality, this does not necessarily mean that corruption does not occur.

Chvalkovská and Skuhrovec (2010) found that the use of e-procurement information system as a tool to measure transparency in public procurement in the Czech Republic is less likely to promote public access. They found that users faced some difficulties in viewing and extracting public procurement data. They then suggest that if e-procurement systems allow easy access to the data, the systems would be an efficient mechanism of public control over government spending. However, there is no concrete evidence to confirm that in a highly corrupt society, the existence of e-procurement systems that increase transparency and provide easier access to key information will encourage the public to perform their watchdog role properly and effectively or help to reduce corruption.

Moreover, there are challenges and risk areas for collusion and corruption in e-procurement processes. Many officials and bidders propose that excessive regulation is an obstacle for implementing e-government procurement (Transparency International, 2011: 6). Transparency International (2011: 6) argues that if the process is deregulated, this should not be done in a way that reduces the effectiveness of measures to secure integrity in procurement systems. Lax regulations possibly invite corruption and decrease accountability.

ADB/OECD (2008: 120) and Transparency International (2011: 6) also propose that the use of ICTs in e-government procurement may pose security risks and enhance corruption. Even though e-government procurement makes corrupt activities more difficult compared to the traditional government procurement, there is still a chance of bidders improperly accessing information on rivals and on proposals submitted prior to the submission deadline (ADB/OECD, 2008: 120; Transparency International, 2011: 6). This possibly increases the risk of collusion and corruption and lowers confidence in e-government procurement systems (ADB/OECD, 2008: 120; Transparency International, 2011: 6).

Furthermore, Bhatnagar (2003: 30) points out that corrupt officials may gradually learn how to overcome the new systems which will eventually reduce the effectiveness of e-government in curbing corruption. Therefore, supervising and monitoring officials' performance are still important (Bhatnagar 2003: 30). Civil society can also play a key role in monitoring corruption in e-government procurement.

In Thailand, there are several methods of public procurement depending on the contracts' value, the nature of products or services, and the procurement urgency (ADB/OECD, 2006a: 76). 'E-auction' is one of the procurement methods that has been used in Thailand since 2005 (IBP, 2013: 146). It is used for the procurement of goods and services with minimum thresholds of THB two million (about GBP 44,000) (IBP, 2013: 146). Generally, the process of e-auction can be divided into three main phrases: pre-procurement, procurement, and post-procurement (ADB/OECD, 2006b: 177) where such processes are carried out through a combination of off-line and on-line approaches. However, it is claimed that the system is getting outdated and enables corruption and collusion (Chantanusornsiri, 2015; CGD, 2015a).

(I) Pre-Procurement Processes: Procurement Planning and Budgeting

During this stage, a public official who is in charge of a procuring government agency will prepare a proposal identifying requirements for procurement and render it to the Chief of the procuring agency. The Chief will consider and appoint the members of the Terms of Reference Committee to prepare the terms of reference (TOR) and bid documents for procurement. Once the TOR is approved, the procuring government agency is required to advertise the TOR at their office, and in radio broadcasts, and newspapers (ADB/OECD, 2006a: 76; ADB/OECD, 2006b: 181; IBP, 2013: 145). Also, they must notify other public agencies including the Broadcasting Authority, the Mass Communication Authority of Thailand, and the Office of the Auditor General of Thailand (ADB/OECD, 2006a: 76; ADB/OECD, 2006b: 181; IBP, 2013: 145). Moreover, the procurement announcements must be posted on the Thai Government's central procurement website i.e. www.gprocurement.go.th and the procuring agency (ADB/OECD, 2006a: 76) for at least three consecutive days in which the public, i.e. citizens can make suggestions on the TOR. If there is a complaint or a request by an appellant, the TOR will be revised and reposted online for at least three consecutive days. After that, bid invitations and bid notifications which contain information such as goods or services requirements, specifications, bidder' qualifications, the venue for purchasing and submitting preliminary

qualification documents, and the venue and time for conducting price submission via the e-auction process, will be prepared and announced.

(II) Procurement Processes: Procurement Solicitation and Selection

In this stage, bidding documents are available for purchase and technical offers can be submitted at the procuring government agency for at least three days after the last day on which bidding documents were sold. According to the Comptroller General's Department (CGD), as this process is done manually, the corrupt public servant could ask for a bribe in exchange for giving the information on the bids submitted by others (Thaipublica, 2015). After that the Members of the E-auction Committee examine the preliminary qualifications of bidders and prequalification of technical offers. Bidders will be notified individually whether they have been pre-selected. The bidders that are not selected can submit their appeal to the Chief of the procuring agency within three days after being notified. If the Chief of the procuring agency does not notify the appellant about the result within seven days, the appeal is valid and the appellant is made eligible for bidding. The price submission phase which will be conducted via e-auction at a specific place allows face-to-face contact among bidders (Chantanusornsiri, 2015) as well as between officials and bidders, which could lead to collusion and corruption (CGD, 2015a).

(III) Post-Procurement Processes: Contract Award and Performance

In the post-procurement process, notification of the winner is posted electronically on the websites of the procuring agency and the CGD. After the formal contract signing, the Materials or Work Inspection and Acceptance Committee will oversee the fulfilment of the procurement contract in terms of quantity and quality. According to Fazekas et al. (2013b: 6), quality of goods or services might be modified in the delivery phase in order to earn corrupt rents. Importantly, corruption at this phase might not be easily noticeable and measured, but symptoms are likely to be noticed in the longer term. For example, high costs but low-quality products or services are likely to have short useful lives or high ongoing operating costs and could damage the environment and lead to personal injury or death. Figure 4-1 below summarises the key procedures of e-auction.

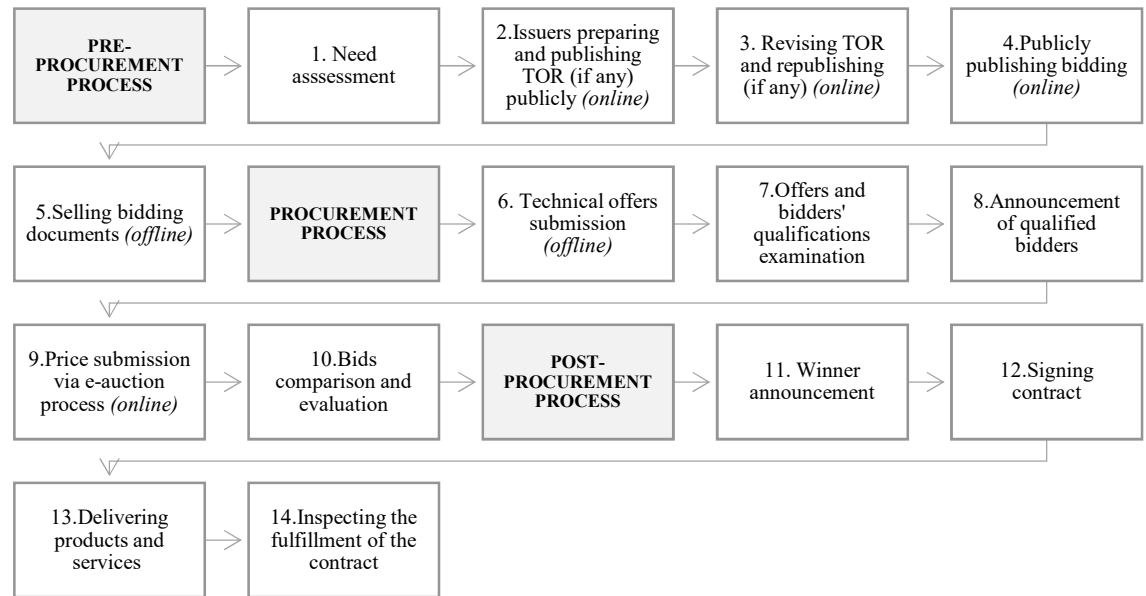


Figure 4-1: E-auction Procedures
(Source: ADB/OECD, 2006; IBP, 2013)

To curb the corruption problem in public procurement in Thailand, the Comptroller General's Department (CGD) developed a new procurement system, 'e-bidding', to replace e-auction (e-auction is still used in some government agencies). E-bidding was first implemented on 16 February 2015 in 12 pilot central government agencies in Thailand (CGD, 2015b). Another 148 central government agencies have started using the new system since 16 April 2015 (CGD, 2015c). The full list of 160 government agencies is shown in Appendix 1. E-bidding is used for the procurement of complex goods and services e.g., bridge construction, dam construction, medical supplies, etc. (CGD, 2015a) that exceed THB two million (about GBP 44,000) (CGD, 2015b). Key procedures of e-auction and e-bidding will be compared and presented later in Chapter 6.

As was pointed out earlier, the key difference between the two systems is that all procedures of e-bidding are conducted online while e-auction is conducted through a mix of offline and online process. The outstanding benefit of e-bidding is that the system allows the government to save more on budgets compared to e-auction. It was reported that the first four months of e-bidding for 1,399 government projects amounting to THB 11.396 billion (approximately GBP 253 million) generated 11 percent on average in budget savings or about THB 1,570 million (approximately GBP 35 million) (Thaipublica, 2015). The CGD is confident that changing the

whole procurement procedure to an online system will increase transparency and eventually help prevent collusion and corruption (CGD, 2015a; Thaipublica, 2015). However, as there is no concrete evidence regarding the effectiveness of e-procurement systems and e-bidding, the first research question of this study is: *does e-bidding reduce the risk of corruption in public procurement?*

4.3.2 Electronic Whistleblowing Platforms

Whistleblowing has no specific definition but in broad terms whistleblowing covers either internal or external disclosures of organisational misconduct (Heacock and McGee, 1987: 35). Concerning the literature on whistleblowing, one of the definitions which is widely used in all literature is credited to Ralph Nader, the American consumer activist who rehabilitated whistleblowing from accusations of organisational disloyalty (Vandekerckhove, 2006: 8; Dussuyer et al., 2011: 431). Nader stated that whistleblowing is “an act of a man or woman who, believing that the public interest overrides the interest of the organization he serves, blows the whistle that the organization is [engaged] in corrupt, illegal, fraudulent or harmful activity” (Vandekerckhove, 2006: 8). Since the 1970s, the term whistleblowing has commonly been used as a means of expressing dissent in a bureaucracy concerning public health, safety, fraud, or abuse of office (Johnson, 2003: 4).

However, the concept of whistleblowing is perceived differently across societies (Vandekerckhove et al., 2014: 37). Therefore, research on whistleblowing across the world is not the same and it is unlikely to be investigated the same way (Vandekerckhove et al., 2014: 37). Academic research has differentiated between whistleblowers and other individuals uncovering corruption. Near and Miceli (1985: 4) have provided a definition of whistleblowing: “the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons, or organizations that may be able to effect action.”

On the other hand, Miceli et al. (2014: 72-73) more recently use the term ‘bell-ringing’ as follows:

“The disclosure by individuals who are not journalists or publishers of information about perceived corruption (including omissions) under the control of organizations of which they are not members (including former member or job applicants), to parties or entities

that disclosers reasonably believe can stop the corruption or can disseminate the information widely”.

In this study, online reporting platforms are the main focus and, importantly, corruption reporters may include both whistleblowers such as procurement officials who work in a government agency and bell-ringers such as bidding firms. Hence, the term whistleblowing in this study is defined as:

The disclosure of suspected or alleged corruption in public procurement or public expenditure by anyone either whistleblowers or bell-ringers through either the offline or online reporting platforms to an internal or external body, i.e. public anti-corruption institutions, that might be able to effect action or be officially responsible for investigating corruption cases.

Moreover, whistleblowing platforms in this study are divided into two categories: ‘traditional platforms’ and ‘online platforms’. The traditional platforms cover common intake channels which most of the anti-corruption agencies in Thailand normally use to receive complaints such as in-person visit, complaint boxes, post, telephone, and e-mail. The online platforms are available on or performed using the Internet or other computer networks such as web portals (online forms on the desktop websites⁴ or mobile websites⁵), mobile applications⁶, and social networking sites. The social networking platform in this study refers to Facebook, the main social media used by the public anti-corruption agencies in Thailand.

According to Lewis et al. (2014: 9), corruption, especially in developing countries, can be very difficult to detect. Whistleblowing is a significant mechanism that can be used to uncover officials’ misconduct. However, the availability of this anti-corruption tool does not ensure that individuals who observe the corruption will speak out.

According to Graham’s model of principled organisational dissent, ‘individuals’ perceived personal cost’ is one of the significant factors for individuals’ not reporting the corruption they observed (Schultz et al., 1993; Kaplan and Whitecotton, 2001). The factor refers to the likelihood of blowing the whistle as influenced by individuals’ calculation of the outcomes (cost of reporting). Previous studies (Schultz et al., 1993; Kaplan and Whitecotton, 2001) tested

⁴ A desktop website is the website used on a laptop or computer or the website used on mobile devices but not adapted to the mobile devices formats.

⁵ A mobile website is a website adapted to mobile devices formats.

⁶ A mobile application is a software application that must be downloaded and installed onto a user's mobile device.

Graham's model and found that individuals' calculation of the personal cost of reporting corruption is significant and has a negative relationship with whistleblowing intention.

According to the theory, perceived personal cost in reporting corruption is associated with the risk of retaliation (Ayers and Kaplan, 2005: 124) which can take several forms (Curtis, 2006: 194). For workplace retaliation, whistleblowers may be transferred to a less desirable position, given an unfair performance review, denied a pay rise, and denied employment (Curtis, 2006: 194). There are four stages of retaliation which occurs in organisations: nullification (whistleblowers being convinced to cancel the report), isolation (being isolated at work), defamation (whistleblower's reputation being discredited), and expulsion (whistleblower being forced to leave the organisation) (Dworkin and Baucus, 1998). In public services, officers who blow the whistle in an organisation might be considered disloyal (Doherty et al., 2014). Kizza (2013: 70) also states that many corrupt activities are less likely to be reported because of people's concerns about reprisals after raising such issues including physical harm, loss of a chance of promotion, being suspended from employment, and sacked. In addition to such negative employment actions, in more extreme cases, whistleblowing may provoke physical attacks on whistleblowers (Kizza, 2013: 70).

Based on previous studies, three key factors that may affect individuals' willingness to blow the whistle include (i) factors related to corruption; (ii) factors related to the whistleblowers; and (iii) contextual or situational factors. Firstly, Gao et al. (2014: 89) state that a wrongdoer's position in the organisation can affect the likelihood of whistleblowing by raising perceived personal cost. According to Near et al. (1993), whistleblowing can be explained based on the 'power theory'. According to the theory, whistleblowing is "an influence process in which the whistle-blower attempts to exert power over the organization or some of its members, in order to persuade the dominant coalition to terminate the corruption being committed by one or more of the organization's members" (Near et al., 1993: 394). Either the reported corruption is then terminated, or the whistleblowing is ignored (Near et al., 1993: 394). Importantly, whistleblowers may face reprisals in response to their attempt to "change the power balance" in the organisation (Near et al., 1993: 394).

In addition, Miceli et al. (1999) refer to Black's 'theory of upward deviance', suggesting that the likelihood of retaliation is greater in a stratified society. According to the theory, the act of a subordinate who lacks power but reports misconduct by his or her supervisor is recognised as

“the most serious kind of deviant behaviour” which “... is most likely to evoke the greatest sanction” (Miceli et al., 1999: 147).

The potential whistleblowers’ perception of the cost of reporting is higher when the wrongdoer holds power in the organisation (Gao et al., 2014: 89; Ayers and Kaplan, 2005: 124). This can have a negative effect on the likelihood of whistleblowing (Ayers and Kaplan, 2005: 124). Previous studies support the idea that the power status of the wrongdoers negatively affects whistleblowing intentions. According to Wortley et al. (2008), fear of reprisal is an important reason for public officials in Australia not reporting the corruption which they observed in their organisations. More than 80 percent of the respondents who perceived corruption by people of higher status (supervisors and/or high-level managers) decided to keep silent because they feared reprisals from the wrongdoers and felt vulnerable to sanctions (Wortley et al., 2008).

Moreover, Lee et al. (2004) found that whistleblowers were more likely to experience retaliation after they reported the corruption of powerful actors. Similarly, Cortina and Magley (2003) find that whistleblowers who are at a lower organisation level than the wrongdoers were more likely to experience work retaliation victimisation (negative work-related actions) and social retaliation victimisation (antisocial behaviour).

In addition, Wortley et al. (2008) found research evidence that public officials tended not to report corruption if there was more than one person and high-powered officials involved, because it was perceived as systemic (Wortley et al., 2008) and therefore the likelihood of retaliation against the whistleblowers was high. If the risk of being exposed is high, effective reprisal against the whistleblowers may be necessary so that the wrongdoers can maintain and continue their corrupt networks (Smith, 2014: 242). In other words, systemic corruption may increase individuals’ perceived cost of reporting and thus decrease their interest in whistleblowing.

In addition to the factors related to corruption, previous studies show that factors related to the whistleblowers also influence the likelihood that individuals will blow the whistle. Several studies have revealed that whistleblowers often have low levels of trust and confidence in the authorities and reporting systems in response to the issues they have raised. According to Near et al. (2004: 230), respondents did not report misconduct they had observed to either an authority within their organisation (internal whistleblowing) or outside their organisation (external whistleblowing) because they believed that nothing would be done to ameliorate the situation.

Similarly, recent research conducted by the Ethics Resource Center (ERC) (2012b: 15) has found that the most common cause for not reporting corruption is the belief that no corrective actions would be taken.

It seems that potential whistleblowers perceive and experience a lack of responsiveness which is likely to undermine their willingness to report corruption. This circumstance might not be related to retaliation. However, the perceptions that reporting will cost them more money, time, and effort than the resulting benefits are worth may decrease their whistleblowing intention.

In addition, research on whistleblowing in the Australian Public Sector shows that public officials are most likely to blow the whistle internally (more than 90 percent of the respondents report internally) (Donkin et al., 2008). According to the findings, trust in management of the organisations gives rise to internal whistleblowing among these Australian public officials (Donkin et al., 2008). On the other hand, the research found that for those who remain silent, the perceptions that nothing would be done in response to their reports, a fear of retaliation, and the perceptions that they would not be protected from retaliation by their employers are the main reasons for not blowing the whistle (Donkin et al., 2008). The findings imply that the internal whistleblowers are more likely to believe that the organisation can protect them from victimisation. In other words, if the observers have trust and confidence in their organisation, their perceived personal cost will be lower. Consequently, this may increase the likelihood of blowing the whistle.

According to Near and Miceli (1995) and Ayers and Kaplan (2005: 127-8), whistleblowing channels can be classified as anonymous and non-anonymous. However, it is still questionable which channel is preferred under what circumstances (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8).

Firstly, reports sent anonymously are more likely to appear less credible and might not attract the organisation's attention (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8). According to the Office of the National Anti-Corruption Commission (NACC) (2015) and the Office of the Public Sector Anti-Corruption Commission (PACC) (2016a), the two public anti-corruption agencies in Thailand, it is unlikely that anonymous reporters will be provided with feedback and anonymous reports with weak evidence have a high chance of being rejected. An authority may need more information or further clarification, and without contact information it is less likely to facilitate investigation processes (Schultz et al., 2010: 1). Such reports may eventually be left

uninvestigated which will increase people's perception that nothing is ever done. Thus, if the observer loses confidence in the organisation's responsiveness, it becomes less likely that they will report anonymously (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8).

However, reporting misconduct anonymously will lower the chance of the reporters' identity being revealed (avoid retaliation) and thus lower their perceived personal cost (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8). Consequently, the likelihood of using anonymous reporting channels should be high relative to non-anonymous channels. Overall, the factors determining which whistleblowing channel is chosen are still unclear (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8).

Lastly, contextual or situational factors can affect whether and how the potential whistleblowers report misconduct (Dworkin and Baucus, 1998). According to Dworkin and Baucus (1998: 1,284), whistleblowers are more likely to report misconduct externally if the situation in their organisation appears unfavourable to whistleblowing. For example, Wortley et al. (2008) found evidence that public officials' intention to report corruption increased when they obtained direct evidence of the corruption, as opposed to just being aware of it. Similarly, a previous study (Dworkin and Baucus, 1998) found that if the whistleblowers have insufficient or no evidence, they tend to report the corruption to internal recipients. On the other hand, whistleblowers who have strong evidence may be prevented from reporting internally and thus they report externally instead (Dworkin and Baucus, 1998). When the corruption is reported internally, the organisation can respond by tampering with evidence or retaliating against the whistleblowers to prevent them from collecting direct evidence (Dworkin and Baucus, 1998).

Smith (2014: 232-3) claims that the rate of whistleblower reprisals vary considerably. Contrary to conventional wisdom, most whistleblowers do not experience retaliation (Smith 2014: 233-4). However, blowing the whistle via external channels or reporting to watchdog organisations, politicians, or media increases the chance of retaliation (Mesmer-Magnus and Viswesvaran, 2005: 288; Smith, 2014: 242). For example, the study by Dworkin and Baucus (1998) found that whistleblowers who report corruption externally experience more extensive forms of reprisals than whistleblowers who report internally. Based on the four stages of the retaliation progress mentioned earlier, Dworkin and Baucus (1998) found that internal whistleblowers experience only nullification and expulsion while all four forms of reprisal are experienced by external whistleblowers. Reporting corruption to external recipients, thus, may increase individuals' perceived cost of action.

Previous research conducted by Gao et al. (2014) found evidence that can shed some light on whistleblowing channels. Firstly, they find that the potential whistleblower's intention to blow the whistle using anonymous channels will be higher if the whistleblowing is administered externally by a third-party than when it is administered internally by the organisation itself. Gao et al. (2014: 89-90) further assume that if wrongdoers are powerful, whistleblowers are more likely to use an external channel, as this seems to ensure their anonymity better than the internal channel. Anonymity may lower the risk of reprisal or personal cost (Gao et al., 2014: 89-90). Such logic leads them to assume that the selection of whistleblowing channels (internal or external) is associated with the wrongdoers' power in the organisation. Their findings however do not support the hypothesis (Gao et al., 2014).

Previous studies have identified that perceived cost negatively affects the willingness of employees to report misconduct. It is therefore not surprising that the observers of corruption may not be comfortable with reporting through the channels that require them to reveal their identity unless they trust the authority.

In the digital age, it is expected that the barriers to whistleblowing and the potential risk of being a whistleblower can be overcome. Nowadays, anti-corruption agencies provide a range of online channels including online forms via official websites, mobile applications, and social networking sites in which whistleblowers can report through mobile devices. The online reporting platforms are expected to help fulfil the needs of potential reporters and facilitate the authorities' investigation.

Firstly, online whistleblowing is a faster and easier way of accessing the services of anti-corruption agencies than traditional reporting. The service can be accessed at any time and can save reporters' time and money. The platforms also provide the option of uploading and sending digital information such as documents, photos, audio, or video files as evidence to support the claims (NACC, 2015; OAG, 2017; PACC, 2016a) which can be done easily and quickly. Importantly, this may decrease individuals' perceived personal cost and increase their interest in whistleblowing.

Secondly, traditional whistleblowing platforms such as complaint boxes that are located at government agencies, hotlines, fax, post, and walk-in services used by most public anti-corruption agencies have their limitations (Schultz et al., 2010). Public anti-corruption organisations state that reporters should reveal their identity and that such personal information

will be kept strictly confidential and will not be made public (NACC, 2015; OAG, 2017). However, reporters may perceive that this cannot guarantee their safety. Phones might be tapped, post traced, and actions in public spaces monitored (Schultz et al., 2010) which is likely to increase individuals' perceived personal cost.

For the authorities, if the whistleblowers prefer to be anonymous when using these traditional platforms, reports are rarely followed up (Schultz et al., 2010). In other words, reporting corruption may result in unfavourable outcomes (a lack of responsiveness) or outcomes that are not worth the cost of reporting such as time, money, and effort.

Nowadays, people can avail themselves of digital technology to help them make a report anonymously and at the same time avoid online tracking. Many Internet browsers are built and designed for online privacy and enable anonymous communication. For example, Tor⁷, a well-known secure web browser allows users to send information through public networks anonymously by obscuring traceable IP address. The availability of the secure software or browsers not only allows reporters to disclose misconduct more securely but also enables effective feedback mechanisms in the sense that reporters are provided with feedback on actions being taken in response to their disclosure without revealing their identity. This might build trust in the authority's responseiveness, increase whistleblowers' confidence in the security of online platforms, and, importantly, might tackle the issue of under reporting of corruption. In addition, if the two-way communications become more effective, it may facilitate the information exchange between authorities and reporters which will further benefit the authorities' investigation process. Figure 4-2 below summarises the purported effects of e-whistleblowing in reducing the perceived costs of corruption reporting.

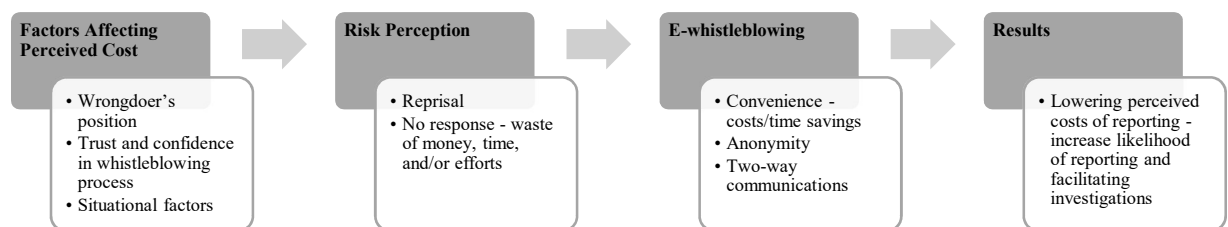


Figure 4-2: The Purported Impact of E-whistleblowing Platforms

⁷ Tor browser is used by individuals, journalists, whistleblowers, non-government organisations, activists, etc. for confidential and/or sensitive communication and for safeguarding the users' security and privacy (The Tor Project, no date).

In this study, e-whistleblowing is defined as the disclosure of suspected or alleged corruption in public procurement through platforms on the Internet or other computer networks. It is typical of repressive or interventionist anti-corruption strategies which require cooperation between public anti-corruption agencies and civil society in order to detect corrupt activities in public procurement. Dussuyer et al., (2011: 431) commented that whistleblowing should be perceived as good practice and a beneficial social activity rather than an act of disloyalty. According to Lewis et al. (2014: 6), nowadays there are positive attitudes to whistleblowing because reporting suspected corruption is more likely to be seen as beneficial to an organisation while those who stay silent might be considered disloyal.

The Internet and social media as digital communication platforms have been used to support whistleblowing (Skoric et al., 2014: 101). According to Schultz et al. (2010), anonymity is the key advantage of e-whistleblowing platforms over traditional platforms. The online functions can ensure whistleblowers' security and enable interaction between the authorities and the whistleblowers which eventually improves the quality of reports (Schultz et al., 2010). This means that e-whistleblowing not only has the capacity to reduce the perceived cost of reporting but also to facilitate the authorities' investigations.

Miceli and Near (1992: 53 - 56) break down the whistleblowing process into at least four stages. Firstly, a triggering activity including unethical or illegal practices happens. Secondly, the potential whistleblowers assess the activities, consult the issues with others, and make a decision on whether and how to report it. In stage three, they may blow the whistle or remain silent. In the case that whistleblowing occurs, in stage four, members of the whistleblowers' organisation and any party outside the organisation (if they are aware of the whistleblowing) react to the complaint and the whistleblowers. A further stage may occur if the whistleblowers are not satisfied with the outcome and go back to stage two where they would make a decision to take further action.

Previous research mostly has investigated conditions that affect these processes but not focused on the effectiveness of *e-whistleblowing platforms to fight against corruption in public procurement*. Previous studies have studied several factors that impact on individuals' intention to blow the whistle. For instance, Miceli and Near (2002) and Wortley et al. (2008) have examined the characteristics of misconduct and wrongdoers in stage one e.g., the frequency and seriousness of misconduct perceived, and the positions of wrongdoers within the organisations.

Wortley et al. (2008) have investigated the characteristics of whistleblowers that affect whistleblowing intention in stage three.

In addition, some studies have examined factors that encourage external versus internal reporters. For example, the situational context in stage two may impact on the decision to blow the whistle internally or externally (Dworkin and Baucus, 1998). Some studies have focused on the factors that enable whistleblowing to be effective or the factors that lead to positive outcomes in stage four (Apaza and Chang, 2011). Moreover, Schultz et al. (2010) have investigated the factors that impact the use of web-based whistleblowing systems to report different types of corruption offences in Kenya.

Although there is extensive research on whistleblowing, few studies have examined the effectiveness of e-whistleblowing in public procurement. Moreover, as was mentioned previously, encouraging whistleblowing is one of the Thai government anti-corruption policies. Recently, the government has increased the number of complaint centres to receive complaints from people who live in local areas, providing one stop-service centres, and offering comprehensive e-government services (The Secretariat of Cabinet, 2015, 2016, 2017). In doing so, there is an increasing trend to improve and use e-whistleblowing platforms such as an online form on mobile websites and mobile applications in addition to the traditional platforms for citizens to report corrupt activities they have experienced or perceived (The Secretariat of Cabinet, 2015, 2016, 2017). This study, thus, examines processes for whistleblowers who choose online instead of traditional reporting platforms to specifically report grand corruption in public procurement. The second research question of this study is: *are e-whistleblowing platforms effective anti-corruption tools in detecting corruption in public procurement?*

4.4 Research Questions and Hypothesis

Returning briefly to the context of Thailand presented in the previous chapter, corruption in the country is rampant and it should be regarded as a collective action problem. The statistics of corruption reporting collected by the PACC since 2008 show that the number of corruption reporting has been increasing and there are many types of corrupt practices in public offices. The information shows that public procurement is government activities carries high risk of corrupt practices among politicians, public servants, and business persons.

As systemic corruption is still a major problem, the task of reducing corruption is accordingly one of the government's main priorities. The Thai government's anti-corruption interventions, however, focus on corruption opportunities e.g., abundant opportunity to corrupt during the public procurement process and low chance of being caught. In other words, the government uses a risk-based approach to fight against corruption. E-procurement systems and e-whistleblowing platforms are developed and implemented in curbing corruption in public procurement.

However, as there is no concrete evidence to prove the effectiveness of these direct anti-corruption interventions when used in a systemic corruption environment, it is less likely to confirm that corruption can be controlled through the implementation of principal-agent or risk-based anti-corruption approaches. Therefore, this study has two research questions as follows:

- (i) Does e-bidding reduce the risk of corruption in public procurement?
- (ii) Are e-whistleblowing platforms effective anti-corruption tools in detecting corruption in public procurement?

At first glance, it seems that the two mechanisms could reduce corruption as they are designed to prevent corrupt practices and increase the chance of offenders being caught (e.g., increasing transparency and encouraging monitoring and sanctioning). As previously stated in Chapter 2, of the three elements in fraud theory, it is not an easy task to control pressure/motive and rationalisation because the two aspects take place in perpetrators' minds which are less likely to be directly observed (Singleton and Singleton, 2010). Eliminating an opportunity means that individuals' perception of corruption opportunities will be reduced and this lowers the chance of individuals engaging in corrupt practices.

Principal-agent theory suggests that cost-benefit calculations of individuals about whether or not it is worth the effort to participate in or oppose corrupt practices are the key focus of anti-corruption mechanisms (Klitgaard, 1988; Marquette and Peiffer, 2015). As individuals expect net positive corrupt gain from being corruption, anti-corruption interventions should change their calculations to make them perceive that the expected corrupt gain is negative (Klitgaard, 1988). In doing so, anti-corruption interventions should reduce discretionary powers of public officials by improving transparency, increasing monitoring tools, encouraging civil society to act as a watchdog, and strengthening sanction implementation (Marquette and Peiffer, 2015).

In accordance with the principal-agent approach, e-procurement systems (e-bidding) and e-whistleblowing platforms should have capacity to reduce corruption as the tools are designed to increase transparency and facilitate the principals to keep track of the agents' activities. This would lead us to expect that the use of these two interventions would lower corruption opportunities and increase the risk of being caught. It should increase the expected negative corrupt gain and then lower individuals' willingness in engaging in corrupt activities.

However, considering the conceptual framework of corruption: the principal-agent approach and a collective action approach presented in Chapter 2 (Figure 2-6) and the context of Thailand: political, economic, and socio-cultural aspects presented in Chapter 3, there are problems with the principal-agent and collective action approaches. According to the collective action theory, effective direct anti-corruption interventions such as the mechanism based on principal-agent theory require certain institutional pre-conditions (Johnston, 2002a; Mungiu-Pippidi, 2006), especially in a particularistic society or a country where corruption is rife like Thailand.

The principal-agent approach implies that corruption can be solved if anti-corruption mechanisms allow the principals to monitor and sanction their agents' behaviour and hold them accountable (Marquette and Peiffer, 2015). However, the success of the approach seems to depend on the principals' ability to observe the agents' act (Marquette and Peiffer, 2015). In Thailand where corruption is deeply rooted and perceived as normal, based on the collective action theory, it is likely that corruption in public procurement in Thailand would not be overcome by the implementation of ICTs in anti-corruption interventions. In other words, it is less likely that there will be a strong political will and commitment of the principals in the implementation of anti-corruption reforms. The country may have effective anti-corruption tools which increase transparency and facilitate monitoring and sanctioning, i.e. e-procurement systems and e-whistleblowing platforms, but it seems that the society lack active principals who will make the best use of these tools.

Previous studies suggest that successful control of corruption requires not only direct anti-corruption approaches but also the indirect ones which should have capacity to effectively foster rule of law i.e. legal punishment, strong civil society, and social sanctions (Johnston, 2002a; Mungiu-Pippidi, 2006; 2017; Rothstein, 2011). For instance, according to Johnston (2002a), increasing transparency will not be the solution to successful control of corruption unless there is a cooperation between state and people in society. A transparent state must be open for scrutiny and on the one hand, make it clear what it does, how and why the procedure is being

done, who takes part in it, and what standard is being applied; and, on the other hand, provide an opportunity for people in society to process the information and use it “with reasons and opportunities” (Johnston, 2002a: 3).

An example of the partnerships between state and civil society is the successful development of social foundations for rule of law in Botswana in the early 1990s to fight against corruption (Johnston, 2002a). Not only was a new effective anti-corruption agency established (legal punishments), but the convicted persons also faced social sanctions. In contrast, the clean hands investigation in Italy (Della Porta and Vannucci, 2007; Vannucci, 2009) as mentioned previously could be the example of an unsuccessful case.

However, not only does Thailand have a weak civil society in which political influence causes conflicts among people, but the Thai economic and socio-cultural contexts are conducive to the pervasiveness of corruption in the public and private sectors. As presented in the previous chapter, there is a degree of political tension and political influence which divides the country and causes class struggle and political polarisation. For instance, according to Chen (2014: 202) “The democratic progress in Thailand clearly proved that a country with an apparent caste system, ... was susceptible to boycott from the upper-class elite in the transformation and consolidation of its democracy resulting in a division in the social structure.” In contrast, according to Kasit Piromya, people from the upper-middle class considered that elected governments were corrupt and the country needed reform before the next elections (Klitgaard, 2015: 16).

In addition, although Thailand is classified as an upper-middle income economy (World Bank, 2011), inequality in income distribution, particularly, a low pay in the public sector, is possibly one of the significant factors that lead to widespread corrupt practices (UNODC, 1999; Warsta, 2004; Tangsupvattana, 2012). This is in accordance with *fraud theory* that a pressure or motive is one of the causes of individuals who possess the position of trust misuse their positions (Gbegi and Adebisi, 2013; Cappelli et al., 2012; Wells, 2013) and the low salaries of public officials in *Klitgaard's formula* on cost-benefit calculation of individual motives to be corrupt (Klitgaard, 1988) and *Palmier's assumption* on bureaucratic corruption (Quah, 2003) as presented in Chapter 2. Moreover, the United Nations Office on Drugs and Crime (UNODC, 1999: 6) points out that an inadequate pay is a part of the root causes of corruption which may force some public officials to accept bribes.

Furthermore, the Thai socio-cultural context i.e. the moral and ethical crises, the existence of strong patron-client networks, and the ineffective of institutional checks and balances, is one of the significant factors conducive to the pervasiveness of corruption in the Thai society. Corruption has become a way of Thai people's life which might have influenced their perception that it is a normal practice. In a society that corruption is perceived as normal, individuals seem to adopt rationalisation to neutralise their corrupt acts.

For instance, corrupt behaviours as a result of insufficient salaries (Warsta, 2004; Tangsupvattana, 2012) or bribes given to officials which are perceived as gifts of goodwill rather than corrupt practices (Quah, 2011: 290) seem to lead society to condone corruption. Moreover, as was mentioned in the previous chapter, some domestic polls revealed that that some Thai people perceived that if corrupt practices are good for the country's economic progress, it is acceptable or some young Thais perceived that being too honest runs the risk of being taken advantage of (Tangsupvattana, 2012: 93-94). This signifies that corruption in Thailand is more likely to be regarded as white corruption because it is socially acceptable. While Heidenheimer posits that grey corruption is the most serious type of corruption because people and elites/officials have different opinion on whether or not such practices are corrupt (Johnson and Sharma, 2004: 2; Werner, 2009: 211), Bruce (2018) argues that white corruption instead is the most destructive because it is tolerated by both parties.

Furthermore, social inequality and strong patron-client bonds in Thailand seem to facilitate corrupt practices as well. Exposing misconduct done by superiors could be seen as a betrayal and increase the risk of retaliation (Hays, 2014b). Previous studies and several surveys also show that business success requires cooperation among politicians, civil servants, and business persons which is usually in a form of collusion.

Considering the cases above, it is in accordance with the key aspects of collective action theory that corruption in majority of developing countries is a self-reinforcing phenomenon. For instance, the young Thais perceive being honesty as not worth doing and private firms are likely to bribe public officials to win the government contracts. This signifies that instead of trying to end the vicious circle, it seems that the younger generation/ business persons have perception that there is no choice other other than being corrupt if they do not want to be at a disadvantage. According to Tirole (1993), trust among members in a society is the significant factor affecting their decision whether or not to corrupt. Individuals absorb collective behaviour from their

members in a society e.g., older generations and potential trading partners (Tirole, 1993; 1996). Hence, this might keep Thai society in patterns of poor collective action behaviour.

Furthermore, the systems and functions of institutional balances and checks in Thailand is relatively ineffective. For instance, the operation of independent public agencies and the media are intervened by the government and politicians (Tangsupvattana, 2012; RSF, 2019b). Additionally, potential whistleblowers in the public sector may perceive that the cost of protecting the public interest is not worth the effort (Tangsupvattana, 2012). The weak institutional checks and balances in Thailand then seem not to perform the function of checks and balances in preventing and intervening corrupt practices.

Based on collective action theory, the current Thai political, economic, and socio-cultural contexts might not support the use of risk-based anti-corruption approaches. In particular, e-procurement systems and e-whistleblowing platforms are implemented as direct anti-corruption interventions and are designed to tackle only the weakness of the procurement procedures i.e. less transparency and the traditional whistleblowing platforms, but not the behaviour of members in the society and not the culture of privilege e.g., patron-client relations. Therefore, it is likely that the tools might be of little relevance to individuals' trust or the reputation for honesty of other people.

Additionally, corruption occurs when there is an opportunity. When anti-corruption mechanisms cannot persuade individuals to believe that the others will be honest, they may believe that an opportunity to unfairly win the government contracts does exist. In order to get the same treatment as the privileged members (e.g., corrupt bidders), individuals would find a way to corrupt as well, as it makes no sense to be honest in an unfair procurement system.

Therefore, this study hypothesises that ICTs cannot reduce corruption in public procurement as summarised in the theoretical framework (Figure 4-3) below. Thailand seems not to provide a context that would be conducive to implementing anti-corruption interventions based on principal-agent theory. The use of e-bidding and e-whistleblowing platforms may not increase people's perception that the costs of being corrupt is greater than the benefits. Consequently, this study proposes two hypotheses as follows:

- (i) A managerialist hypothesis: e-bidding does not reduce the risk of corruption in public procurement.

- (ii) An interventionist hypothesis: e-whistleblowing platforms are not effective anti-corruption tools in detecting corruption in public procurement.

The next chapter will review research methodology used to answer the two research questions.

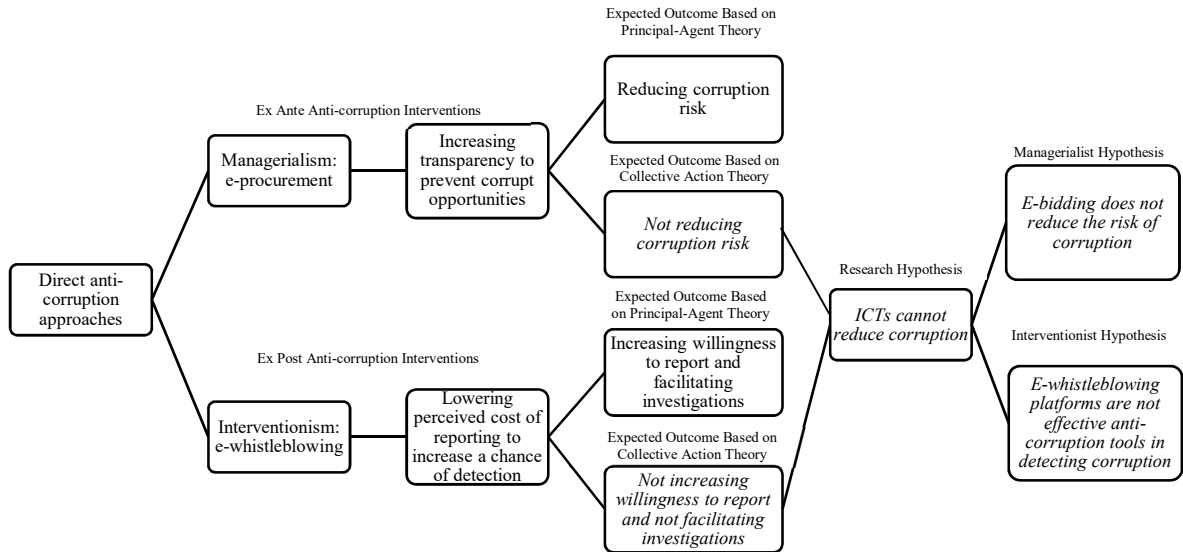


Figure 4-3: Theoretical Framework of Direct Anti-corruption Approaches

Chapter 5 Research Methodology

5.1 Introduction

This chapter outlines the research methods used in this study to answer the two research questions. To conduct an effective analysis, this study employs a mixed methods case study approach that integrates qualitative and quantitative analysis to examine the effectiveness of the two anti-corruption mechanisms in public procurement: e-procurement systems and e-whistleblowing platforms. It is anticipated that the mixed method would allow the researcher to gain a wealth of reliable research.

This chapter is divided into four main sections. Following this introduction, the second section examines why this study uses a case study and its limitations. The third section explains the qualitative data collection method used to gather information needed for examination in the empirical chapters i.e. in-depth, semi-structured interviews. In this section, the process of conducting elite interviews in Thailand is explained.

This is followed by the reviews of quantitative methods used in this study. The section explains regression analysis based on the Corruption Risk Index (CRI) to examine e-procurement systems. Challenges of corruption measurement are also discussed. After that, the section presents the use of statistical data regarding corruption reporting via different whistleblowing channels to evaluate the effectiveness of online whistleblowing platforms. Limitations pertaining to the quantitative analysis in this study are presented. A table summarising the research methods is provided at the end of the chapter.

5.2 Case Study

There are several reasons behind the use of case study in this study. Firstly, Yin (2013) defines that a case study approach is one of many research strategies used in conducting social science research which provides "an extensive and in-depth description of some social phenomenon". Specifically, "the distinctive need" for using a case study approach is "the desire to understand complex social phenomena" in a holistic and real-life context (Yin, 2013). Gagnon (2010: 2) also states that one of the key advantages of the case study method is that it warrants in-depth analysis of phenomenon, supports historical context development, and ensures internal validity.

The case study forces researchers to go beyond appearances to try to find out reasons why things happen the way they do (McNabb, 2015). Compared to other research methodologies, Yin (2013) suggests that the case study approach is an empirical inquiry that allows researchers to answer "how" or "why" research questions and investigate contemporary phenomena where the researchers have little or no control over the situation.

As discussed in the previous chapters, corruption is a complex and multifaceted phenomenon which manifests itself in a number of different forms across societies, economic, and political processes. To gain a deeper understanding of corruption and more insight into current anti-corruption mechanisms used in a particular society, a case study method is likely to fit the criterion above and be suitable to use at a practical level. Moreover, using the case study aims not to answer only whether or not the anti-corruption tools are effective in the fight against corruption in public procurement but also to find out the reasons behind the results e.g., key benefits and challenges confronting the implementation of these anti-corruption tools. In addition, the data will be analysed and discussed with no attempt to influence or control the behaviour of those involved in the study. This will allow the researcher to further identify how to make the anti-corruption tools more fit the real circumstances.

Secondly, the case study method can rely on multiple sources of evidence which support a mix of quantitative and qualitative studies (Yin, 1994: 13-14). Based on the research questions, this study needs different methods of data collection and analysis in order to carry out an effective analysis. Specifically, mixed methods allow the researcher to examine anti-corruption techniques from different perspectives so as to provide more and complete information than either qualitative or quantitative data would alone provide.

Furthermore, there are two additional aspects which might indicate that this study is conducted based on the specific standard of case study methods. Case studies are classified into three main types: intrinsic, instrumental, and collective (Gabrielian et al., 2007: 150-151). *Intrinsic case study* is when a particular case is examined as it is of interest. *Instrumental case study* is a particular case studied to provide insight on issues so as to refine a theory. *Collective case study* means that researchers investigate an incident or general condition by examining a number of cases collectively.

This study is conducted on the basis of intrinsic and instrumental purposes. As mentioned earlier, this study examines the effectiveness of anti-corruption means based on principal-agent

approaches in a country where corruption is regarded as a collective action problem. For instance, the theories and previous studies suggest that transparency is the key starting point in the process of strengthening government procurement and that the benefits of online functions of e-whistleblowing platforms are likely to lower the perceived cost of potential whistleblowers in reporting. However, several academics suggest that a risk-based anti-corruption approach seems not to work well in a highly corrupt societies. Therefore, the study of corruption in public procurement in Thailand undertakes to gain an understanding of such aspects in a particular context which is valuable for its own sake and might result in another perspective in explaining anti-corruption strategies. Thus, the case study in this research serves both intrinsic and instrumental purposes.

Regarding the types or specific designs for case studies, Mustafa (2008: 8) suggests that studying multiple cases is likely to provide more explanatory power than a single case as it allows investigators to examine a theory at least more than once. However, Gerring (2006: 1) states that, in social sciences research, researchers may opt to either superficially observe multiple cases or intensively observe a few cases.

For political science research, Gerring (2006: 1) posits that the topic usually covers states, regions, organisations, or elections in which an in-depth knowledge of examining a case study of individual, organisation, or event is sometimes considered to be more helpful than observing a large number of examples because it enables researchers to gain an accurate and deep understanding of the holistic view by investigating a key point. Yin (1994: 38) also argues that a single case might be appropriate if it is "the critical case in testing a well-formulated theory" and can contribute knowledge, generate theory-building, and may help further investigations being refocused. In addition, a single-case study design is suitable if the case is revelatory in which scientific investigation is previously inaccessible (Yin, 1994: 40).

As mentioned earlier, the study is conducted as a case study of anti-corruption mechanisms inspired by principal-agent theory used in Thailand where collective action problems exist. There has been apparently no concrete proof of the effectiveness of e-bidding and e-whistleblowing systems in the fight against corruption in public procurement thus far. Firstly, e-procurement systems in Thailand have been transformed since early 2015 from an e-auction system whose functions include both online and offline process to an e-bidding system in which all procedures proceed online. The government authority believes that implementing the online process in every step of public procurement will help reduce collusion and corruption. In

addition, e-whistleblowing platforms such as an online form on mobile websites, mobile applications, and social networking sites are in their infancy in Thailand and have been developed by several anti-corruption agencies. In this context, it is aligned with Yin's suggestion that a single-case design is suitable if the case is revelatory.

Furthermore, Yin (1994: 41) proposes that a single case study can incorporate sub-units which means that the case analysis can include outcomes from several projects underlying such a case. The sub-units help to increase opportunities for examining and enhancing an extensive in-depth analysis of the single-case study. Nevertheless, researchers should be made aware that focusing too much on the sub-units and ignoring the holistic aspects of the larger unit of the study might result in shifting the target of the research orientation (Yin, 1994: 44).

In relation to this study, Thailand is selected as a single-case study in assessing the two anti-corruption mechanisms in public procurement. However, each mechanism is considered as a sub-unit of the case study. Thus, according to Yin (1994: 38-39), the research design of this study will be categorised as *a single-case with multiple units of analysis*.

The multiple sub-units are conducted in order to cover anti-corruption programs that all the key stakeholders in a society could take an active role in. However, the sub-units (e-bidding and e-whistleblowing platforms) are based on the same holistic concept which is using principal-agent approaches to fight against systemic corruption. The holistic aspect of the larger unit that Yin mentioned is therefore not disregarded.

However, a case study approach has its own limitations in which generalisation is considered as a major concern of the method (Mustafa, 2008: 24; Van Evera, 2015). Mustafa (2008: 24) points out that investigators studying too few cases can then make assumptions that the findings are universal, or may be idiosyncratic human traits which are applicable only to a particular group of people and certain circumstances. Specifically, Van Evera (2015) points out that researchers will encounter this problem only if they are conducting a single-case study.

On the other hand, Stake (1978) points out that "good generalisations aid the understanding of general conditions, but good generalisation can lead one to see phenomena more simplistically than one should". In fact, the case study strategy aims to produce a deep understanding of, define, and explain a particular case, but not to represent the world (McNabb, 2015). Stake (1978) states that what is considered useful understanding is a complete knowledge of a particular or specific characteristic which we recognise in new and different contexts.

Even while this research uses a single-case study strategy, it includes both qualitative and quantitative data collection methods as mentioned earlier in this chapter. The quantitative data collection e.g., the use of the Corruption Risk Index (CRI) in examining e-government procurement systems through a large number of procurement contracts in Thailand, however, can provide statistical generalisation. In addition, this study may not directly aim at new theory-building but one of the goals is to contribute additional knowledge or information to the existing well-defined anti-corruption theories so that further studies in anti-corruption fields might be refocused. This is aligned with Stake's suggestion that the characteristics of the case study approach are to improve an understanding and "adding to existing experience" which "match the readiness people have for added experience" (Stake, 1978).

5.3 Qualitative Methods: Semi-Structured Interviews

A qualitative approach is used in this study to gain information that is not publicly available. The first step is to design and conduct an in-depth interview with key informants or procuring officers and anti-corruption authorities to gain insight into the effectiveness of e-procurement systems and whistleblowing platforms.

The use of in-depth, semi-structured elite interviews in this study is shaped by the research topics. Interviews are one of the methods for collecting qualitative data and are used in a small N research (Barakso et al., 2014: 194). Interviews allow researchers to find out more about facts behind a particular circumstance, policy, or problem in which the information is less likely to be obtained by using other methods such as official documentation, reports, or media. According to Burnham et al. (2008: 231), a majority of work conducted by political science researchers involves the study of decision makers in which one of the main research methods used in data collection is elite interviews.

Yin (2012: 56-57) defines the term elite interviews as an occasion for researchers to interview persons of high status who have unique roles and are able to provide key information on specific issues which other people cannot provide such as elected officials, public figures, etc. In general, elite interviews are suitable if respondents are expert in a particular research topic (Burnham et al., 2008: 231). In addition, as this method allows researchers to ask questions directly with actual respondents which other qualitative methods do not allow, the interviews should be adopted if political scientists believe that key information of a particular phenomenon is likely to be obtained by talking directly to the respondents (Rathbun, 2008: 700).

However, Rathbun (2008: 700) points out that the reliability of participants and the status of interview data are the two things that should be taken into consideration when conducting interviews. As this study is conducted to examine the anti-corruption tools in government procurement, the target respondents are the ones who have more distinctive insights and/or have experience regarding corruption and anti-corruption in government procurement. This is to ensure the validity and reliability of the data collected.

A purposeful sampling is used in selecting respondents in this study. According to Struwig and Stead (2001: 122), purposeful sampling is when research participants have specific characteristics and can provide in-depth information which researchers are interested in. The potential respondent candidates in this study are officials across Thai government departments who have knowledge and experience in purchasing activities through electronic procurement platforms and authorities in anti-corruption departments who have in-depth knowledge and experience in managing different platforms of online and traditional reporting channels. In general, the purposes of interviews in this study are to gather key information, facts, and opinions from key stakeholders about the (in)effectiveness of the current anti-corruption tools in government procurement to answer the research questions.

According to Kapiszewski et al. (2014: 195), researchers who conduct semi-structured interviews will have a list of "information needed" or "questions to get to" but flexible conversations during interviewing are allowed. Specific questions will be developed and prepared in advance. However, as it is expected that there will be unexpected issues relating to the study during the interviews, so using semi-structured interviews will allow the researcher to be more flexible and responsive to the respondents' answers. In addition, Burnham et al. (2008: 231) suggest that semi-structured interviews are considered as the most effective method of collecting data on decision making processes which is likely to be aligned with this study.

The major part of field work in this study is to conduct an interview with key public officials across government departments and public anti-corruption organisations in Thailand. At the early stage, interviewing public officials who are directly involved in developing or very familiar with e-procurement systems and whistleblowing process is necessary to gain a better understanding of the impact resulting from the use of the two anti-corruption tools. More importantly, interviews would allow for the collection of original data from the real users (procuring officials and public authorities) which are unavailable publicly or unable to find in documentary research. For example, there is no information regarding the issues or problems of

the new online procurement systems and online reporting platforms available. Additionally, participants' answers and explanations may lead to new perspectives that were overlooked before.

In preparing for the field work, the first task is to identify key informants who could provide information and explanation of the two anti-corruption tools. As this study requires the reviews and opinions of public officials with a high degree of knowledge and direct experience with different types of public procurement methods and whistleblowing platforms, corruption in public procurement, and investigations, a non-probability sampling technique i.e. a purposive sampling, was used in selecting samples from the population of interest.

However, this study recognises that there are some potential risk in which a gatekeeper may deny access to potential participants. The topic of the roles of ICTs in public procurement is a sensitive one in Thailand, since there is potential for reputational damage to public officials and departments perceived to be performing badly in managing public procurement.

To mitigate these risk, official request letters were submitted to heads of government departments to ask for permission to interview officials. The letter contained details of the topics and key topics to be asked and a rationale for the research. In other words, it was an up front and above board approach which would allow heads of departments to make an informed decision. Since the interviewees were nominated by their heads of department, they would be effectively empowered to speak on behalf of their departments. The approach was designed to create a safe space within which officials could speak frankly about digital procurement problems without implicating either themselves or any named individuals.

Based on the information published on online official announcements, media articles, and official websites, there are 160 pilot central government agencies across 21 ministries using the new procurement system (e-bidding) and three key public anti-corruption agencies (e-whistleblowing) in the country. Therefore, the original plan was to conduct an interview with officials in the 24 government departments/organisations. However, additional public agencies were introduced later by the respondents during the interviews. Consequently, including a snowball sampling, 35 face-to-face interviews with 47 officials were conducted over the course of four-month field work period in Thailand. To be specific, 23 interviews with 31 procurement officials across 21 Ministries were conducted to gain information about e-procurement systems. In addition, I interviewed 16 officials who have in-depth knowledge and long experience in

corruption investigations and managing online reporting platforms across 12 of the anti-corruption organisations. Out of these 12 organisations, seven were recipients of internal reports and five were recipients of external reports.

By means of in-depth, semi-structured interviews with procuring officers, the study contributes insights into the reasons why e-procurement can reduce the risk of corruption and why e-whistleblowing platforms can detect corruption (the benefits of ICTs) and also why the system is not a silver bullet for corruption in public procurement (the limitations of ICTs). In addition, this study found that a purposeful method of sampling or snowball sampling can be helpful in research related to sensitive topics. I was able to gain access and cooperation from a target population.

The assigned interviewees were contacted via telephone and e-mail. The interviews took place at the public agency office during business hours to mitigate the potential issues of personal safety for the participants involved in the research. In addition, a plain language statement and a consent form were used to make it clear that individuals will not be named in the thesis or in any published outputs, that they can withdraw at any time and the research materials will be immediately destroyed, and that there is minimal risk to their employment from their participation. Information plain language statement, consent form, and research questions can be found in Appendix 3 - Appendix 7 at the end of this study.

With the participants' permission, I audiotaped the interviews for further analysis. Since the topic is relatively sensitive as was mentioned earlier, some participants chose not to be audiotaped and I only took notes. For data analysis, the interviews were transcribed in Thai and partly in English and the analysis was aided by the NVivo software and the officials' responses were presented in a descriptive manner by quotes as appropriate. Even though the interviewees were nominated by their heads of department, which implied that they were effectively empowered to speak on behalf of their departments, each interviewee was assigned a number i.e. Official 101-131 in e-procurement analysis and Official 201-216 in e-whistleblowing analysis to protect their privacy and maintain confidentiality.

The objective of the study is to examine the 'effectiveness' of electronic anti-corruption tools in developing and strengthening public procurement. For the analysis of e-procurement systems, transcriptions and notes were analysed and coded to identify the effectiveness of e-auction and e-bidding in encouraging competition and preventing corruption in public procurement.

Initially, pre-set codes were determined based on the key differences between e-auction and e-bidding e.g., e-procurement regulations, exceptional rules, the main problems of e-auction and e-bidding, and the key benefits of the two systems. Moreover, there were some parts of the interviews which formed an interesting issue and related to the study. Such information was coded as emerging views i.e. the limitations of online systems which helped explain the effectiveness of electronic procurement systems in preventing corruption.

For e-whistleblowing platforms, the analysis emphasises the effectiveness of digital whistleblowing platforms in detecting corruption in public procurement. Firstly, the study attempts to define the term ‘effectiveness’ in a more objective way in which it can be explained and validated by qualitative and quantitative data. According to Near and Miceli (1995: 681) ‘effectiveness in whistleblowing’ is defined as “the extent to which the questionable or wrongful practice (or omission) is terminated at least partly because of whistleblowing and within a reasonable time frame”. In addition, Dworkin and Baucus (1998: 1,289) use the term ‘effectiveness of whistleblowing’ to refer to the cases where “... the organization launched an investigation into the whistleblower’s allegations - on their own initiative or conducted by or required by a government agency - or ... the organization took steps to change policies, procedures, or eliminate corruption”.

Based on the previous research, ‘the effectiveness of e-whistleblowing’ in this study is therefore defined as ‘the extent to which the suspected corruption in public procurement reported via electronic platforms facilitate the authorities’ verification or the cases reported meets the requirements and are accepted by the authorities for further investigations’. The definition is used as the basis for exploring the research question: are e-whistleblowing platforms effective anti-corruption tools in detecting corruption in public procurement?

In order to address the research question, two sub-research questions have been developed as follows:

- (i) Do ICTs affect individuals’ reporting behaviour?
- (ii) To what extent does the corruption reported via e-whistleblowing platforms facilitate the authorities’ investigations?

The first sub-research question are investigated by comparing the use of e-whistleblowing platforms to the use of traditional platforms by whistleblowers to disclose misconduct. Factors

affecting the likelihood of potential whistleblowers to (not) report the questionable practices via online channels are also identified. After that, the second sub-research question are examined by comparing the recipients' reaction or decision to the report submitted via electronic and traditional reporting platforms.

The interview questions can be found in Appendix 7 at the end of this research. The interviews were guided according to the following topics:

- types/functions of offline and online whistleblowing platforms
- online whistleblowing rules and regulations
- effectiveness and benefits of online whistleblowing platforms
- challenges, risk, or problems of online whistleblowing platforms
- attitude toward the use of online whistleblowing platforms in Thailand

5.4 Quantitative Methods: Documentary Research

Documents in research can refer to online or offline public documents, personal records, artifacts, and physical traces (Merriam and Tisdell, 2015: 173). All types of documents can help investigators to reveal meanings, enhance understanding, and find facts and insight relevant to the research problems (Merriam and Tisdell, 2015: 189).

There are both strengths and weaknesses in using documentary evidence in research. Merriam and Tisdell (2015) identify the key advantages as follows:

- Documents are a good or the best source of data that can provide knowledge and insight into the particular phenomena, especially when research studies are about technical expertise or the data cannot be obtained through other data collection methods such as observation or interviews.
- Documents are easy and cost little or are free to access.
- Documentary evidence is objective, stable, and unobtrusive, compared to other forms of data collection.
- The data found in documentary evidence can be used in verifying and developing hypotheses, providing descriptive information, providing historical understanding, and tracking changes and development.

- If the data is found to help clarify issues in the study and be incorporated into the theoretical building process, it can become significant evidence in supporting the findings.

On the other hand, Merriam and Tisdell (2015) point out some disadvantages as follows:

- Some documents may contain much irrelevant information to the study or be in a form that is not ready to use for research study as they are originally not prepared for research purposes.
- The findings from documentary evidence might conflict with or cannot be used in supporting the findings obtained from other data collection methods e.g., interviews or observations.
- Documentary evidence may contain "built-in biases" i.e. less authentic.

In this study, the key criteria in the selection of documentary sources are the reliability of the sources and the relevance to government procurement and whistleblowing. All the documents used are official and derived directly from relevant public authorities to ensure the authenticity, accuracy, and reliability. This study collects data from multiple sources which it is expected that the findings can be incorporated so as to provide profound insights and each of them would be the supportive information to ensure that all findings are valid, reliable, and consistent.

5.4.1 E-procurement Systems: Regression Analysis

One challenge of the study of anti-corruption is how to measure corruption. According to Kurer (2015: 36), the definition of corruption which is commonly cited as the misuse of public power seems to be “inoperationable and thus beyond measurement”. Kurer (2015: 36) posits the views that some actions that “appear to be corrupt” are prohibited and criticised by public opinion although it is the unproven corruption allegations. In such circumstances, suspected misuse of public power has become equated with corruption (Kurer, 2015: 36).

Similarly, Hough (2017: 50) states that corruption is immeasurable. When talking about *tackling corruption*, it implies that we have to know in the first place that how much of corruption exists in order to reduce its level (Hough, 2017: 49). As it is a difficult task to quantify severity of corruption (Warf, 2019: 11), it is therefore less likely to prove the effectiveness of any implemented anti-corruption approach (Hough, 2017: 50).

When corruption cannot be measured directly, a number of quantitative studies rely on the perception of corruption or public opinion polls (Kurer, 2015: 36; Woo and Choi, 2018: 13). According to Kurer (2015: 36), the theoretical literature on corruption, however, ignores the public opinion approach even if it is widely used in the international comparative studies. Kurer (2015: 36) states that the ones who use the public opinion approach have to believe that the common understanding of the term corruption exists across different societies. However, as presented in Chapter 2, there are a number of different facets relevant to the phenomenon of corruption such as its meanings, types, and occurrences. Therefore, the theoretical literature assumes that there is no universal standard to define the term corruption (Kurer, 2015: 36).

According to Woo and Choi (2018: 13), the most well-known and widely cited corruption survey is the Corruption Perceptions Index (CPI). The CPI is annually publishes since 1995 (Lambsdorff, 2016: 81) by Transparency International (TI), one of the most well-known anti-corruption non-governmental organisations. The CPI is a composite index which combines 13 different data sources or polls measuring corruption in the public sector as perceived by experts and business persons in each country (Transparency International, 2018a, 2018b). Not all countries appear in the CPI and only the countries that have at least three data sources are included in the index (Transparency International, 2018b).

Generally, the CPI is instrument in providing “the best available overall picture of corruption” (Dahl, 2012: 162). The index shows a country’s score and ranking. From the 2012 edition onwards, the index is estimated on a scale of 0-100 in which the scores can be compared over time (Transparency International, 2018a, 2018b). Zero indicates the highest level of corruption perception while 100 means the lowest level of perceived corruption. The ranking indicates a country’s position relative to the other countries in the index (Transparency International, 2018b).

In addition to Kurer’s arguments about the public opinion approaches mentioned above, Johnsen et al. (2012: 6) identify the three principal challenges of corruption measurement which make conclusions on the effectiveness of anti-corruption programmes invalid. The three challenges include measuring the scale of corruption, measuring change in corruption levels, and establishing causality. According to Johnsen et al. (2012: 6), the challenge of measuring the scale of corruption arises as:

- measurements rely on perceptions of corruption which such perceptions are different across countries and might not be comparable;
- measurements rely on experience of corruption that sometimes can focus only on a subset of corruption, for example, an individual's experience of bribery rather than “corruption as an overarching concept”;
- measurements that can provide only a reliable measure of petty corruption rather than a grand corruption which is sometimes not directly experienced by a large number of ordinary people and less likely to be measured by survey experience.

The CPI, however, has some significant limitations reflecting the challenges of corruption measurement that Johnsen et al. (2012: 6) have pointed out. Firstly, the index does not measure corruption per se but the perceptions of corruption or only an approximation of corruption levels in a country (Transparency International, 2018b). Secondly, the index does not measure all types of corruption e.g., corruption in private business, tax fraud, or money laundering. It rather reflects the perceptions of (i) corruption in the public-sector including administrative and political corruption, bribery, diversion of public money, use of public office for private benefits, excessive regulation, nepotism, and state capture; and (ii) the integrity, transparency, and, anti-corruption systems including the effectiveness of criminal prosecution, the existence of “adequate laws on financial disclosure and conflict of interest prevention,” and the public's access to information (Transparency International, 2018b). In addition, the index captures only corruption perceived or experienced by experts or business persons while the perception of ordinary citizens are not included (Transparency International, 2018b).

Therefore, rather than relying on the corruption perception index, this study uses regression analysis adapted from the work of Fazekas et al. (2013a, 2013b, 2013c) who developed the corruption measurement methodology: Corruption Risk Index (CRI) to evaluate the effectiveness of e-procurement systems. The CRI does not measure corruption per se but it allows *the probability of corruption* that could occur during the process of e-auction and e-bidding to be quantitatively and objectively assessed.

The CRI is based on the indicators of grand corruption in public procurement that measure the risk of corruption in the context that corruption can proceed in many ways to avoid competition so that the pre-selected firms repeatedly win the government contracts (Fazekas and Kocsis, 2015: 4). The warning signals of corruption in public procurement (corrupt inputs) are derived

from the academic literature, media content, and interviewing key informants in Hungary e.g., length of submission period, length of evaluation period, types of public procurement, tender modification, tender re-launching, etc. (Fazekas et al., 2013b). On the other hand, three indicators of corrupt outcomes include (i) a single received bid, (ii) a single valid bid from a pre-selected bidder which both indicators signal no competition, and (iii) a high winner's share of issuer's contracts which is a sign of repeated contract awards to the same bidder (Fazekas et al., 2013b: 12; Fazekas and Tóth, 2014b: 5).

The CRI relies on the co-variation between corrupt inputs and corrupt outcomes associated with institutionalised corruption (Fazekas and Tóth, 2014a). However, this study does not aim to build a CRI based on Thai procurement data, but to evaluate the risk of corruption in e-auction and e-bidding. To be specific, the corrupt input (independent variable) used in this study is only the public procurement types i.e. e-auction and e-bidding. The three outcomes indicators are all included in this study.

As there are several challenges of corruption measurement problems, the above information about the CRI explains why this measurement method which relies on official data (public procurement data) was chosen to evaluate the effectiveness of e-procurement systems in this study. To be specific, firstly, the CRI is more likely to provide a precise measurement scale of a corruption risk. It focuses on the red flags of public procurement corruption i.e. low competition, not individuals' perception or experience. Therefore, this will provide a reliable measure of the risk of grand corruption in public procurement.

The second measurement challenge is the lack of longitudinal data which make it difficult to measure changes in "overall levels of corruption" (Johnsøn et al., 2012: 6). For this study, it does not focus on the overall levels of corruption in a country but the focus is on corruption in response to a particular intervention which is implementing e-bidding in public procurement. The CRI enables this study to measure changes in corruption. To be specific, this study compares the risk of corruption in public procurement before and after e-bidding was introduced by comparing e-bidding with auction and comparing e-bidding in different periods.

Establishing causality between an anti-corruption intervention and changes in corruption levels is another challenge of corruption measurement identified by Johnsøn et al. (2012: 6). According to Johnsøn et al. (2012: 6), a particular intervention should allow the drawing of conclusions on the effectiveness and the performance of such an anti-corruption programme. The CRI has

specific indicators which can be measured and can identify how and why an intervention i.e. e-bidding has (not) succeeded in curbing corruption.

For example, suppose there is a high number of single received bid contracts, a high number of single valid bid contracts, or a high market share of winners in e-bidding, this means that the competition in e-bidding is low, hence, the risk of corruption is high. Therefore, causality between an anti-corruption mechanism (e-bidding) and changes in corruption levels can be identified. In this case, it might conclude that e-bidding is not an effective anti-corruption mechanism in reducing corruption risk.

Based on the work of Fazekas et al. (2013b), there are three regression models used to show that if corrupt input indicators could contribute to the three corrupt outcome indicators reflecting high-level corruption in government procurement. Specifically, two binary logistic regressions are used for the first two corrupt outcomes 'single received bid' and 'single valid bid' while a linear regression is used for the third corrupt outcome 'winner's share within the issuer's contracts' (Fazekas et al., 2013b; Fazekas, 2016). The structures of the binary logistic regressions and linear regression are as follows:

(I) Binary logistic regressions on single bidder (*single bid received or single bid valid*)

$$Z_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \epsilon_i \quad \text{where}$$

single bidder_i = 1 if the i^{th} contract awarded has only one bidder and 0 if it has more.

Z_i is the logit of a contract being a single bid received or valid bid contract.

β_0 is the constant/intercept of the regression.

β_1 is the scalar of coefficient for explanatory variable.

X_{1i} is the matrix of corrupt input in the submission or assessment phase.

β_2, β_3 are the vectors of coefficient for control variables.

X_{2i}, X_{3i} are the matrix of control variables.

ϵ_i is the error that cannot be explained by the model.

(II) Linear regression on winner's share within the procuring agency's contracts

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \epsilon_i \quad \text{where}$$

Y_i is winner's share within the procuring agency's contracts.

β_0 is the constant/intercept of the regression.

β_1 is the scalar of coefficient for explanatory variable.

| | |
|--------------------|--|
| X_i | is the matrix of corrupt input. |
| β_2, β_3 | are the vectors of coefficients for control variables. |
| X_{2i}, X_{3i} | are the matrix of control variables. |
| ε_i | is the error that cannot be explained by the model. |

Based on the CRI, risk of corruption in three different stages of procurement are examined (Fazekas et al., 2013b; Fazekas and Tóth, 2014b):

- Risk of corruption in the submission stage: single received bid
- Risk of corruption in the evaluation stage: single valid bid
- Overall risk of corruption in the public procurement process: high winner's share within the issuer's contracts

In order to use the CRI, this study created a unique database using official public procurement records and analysed it to detect opportunity for corruption in e-auction and e-bidding. The measurement relies solely on official data as public procurement data can only derive from the official website of Thai government procurement: www.gprocurement.go.th. The website provides procurement records such as a list of participants for each contract, a list of qualified bidders, results of the competition, and key information in a contract e.g., a winner and contract amount, all of which are the required data for the use of the CRI and will be used in this study.

Specifically, e-bidding is used for the procurement of complex goods and services e.g., bridge construction, dam construction, medical supplies, etc. (CGD, 2015a) that exceed THB two million (about GBP 44,000) (CGD, 2015b). The new procurement system was first implemented on 16 February 2015 in 12 pilot central government agencies in Thailand (CGD, 2015b). Another 148 central government agencies have started using e-bidding since 16 April 2015 (CGD, 2015c). Therefore, contracts auctioned through the e-bidding system from 16 February 2015 to 16 February 2016 by 160 central government agencies across 21 Ministries and contracts auctioned through the e-auction system during the preceding year are used in this study. The data is free to access. However, it is not ready-for-use and is therefore manually extracted. The full list of 160 government agencies is shown in Appendix 1.

This study includes an analysis of descriptive statistics and a regression analysis based on three regression models proposed by Fazekas et al. (2013a, 2013b, 2013c). For the analysis of

descriptive statistics, the risk of corruption during the submission and assessment phase i.e. single received bid and single valid bid are evaluated. For the regression analysis, the study uses the regression models proposed by Fazekas et al. (2013b) to show that corrupt input indicators (e-auction, e-bidding, and e-bidding in different periods) could link to the three corrupt outcome indicators reflecting high risk of corruption in different procurement phases.

Based on the CRI, the quantitative analyses in this study assess the risk of corruption more objectively and inclusively. The study does not investigate a corruption risk in only a particular procurement stage as was the case with previous studies (Balsevich et al. 2011; Lewis-Faupel et al., 2014; Luijken and Martini, 2014). More information on the CRI will be presented in detail in Chapter 7, the quantitative analysis chapter.

5.4.2 E-whistleblowing Systems: Statistical Data

To verify and support the qualitative findings regarding the effectiveness of e-whistleblowing platforms, this study uses statistical data about corruption cases reported which are collected by three key public anti-corruption agencies in Thailand as follows:

- 1) The Office of the National Anti-Corruption Commission (NACC)
- 2) The Office of the Public Sector Anti-Corruption Commission (PACC)
- 3) The Office of the Auditor General of Thailand (OAG)

The three agencies are the main public anti-corruption organisations which provide official channels for people to file complaints about public officials committing any offence including corruption in public procurement and public expenditure. Therefore, they are the best sources to show reporting trends and reflect the true extent of the use of digital technology in government anti-corruption efforts. The power and duties of each agency are briefly presented below.

1) The Office of the National Anti-Corruption Commission (NACC)

NACC is an independent anti-corruption agency under the constitution whose main duty is to investigate and inspect corrupt activities that involve high-ranking state officials and politicians i.e. those from the Division Director level and upwards who are suspected of committing corruption or appear unusually wealthy (NACC, 2014). In addition, NACC monitors the ethics of high level public officials and politicians (NACC, 2014).

2) The Office of the Public Sector Anti-Corruption Commission (PACC)

PACC is a government agency under the Ministry of Justice (PACC, 2016a). Their duties are similar to NACC to investigate and probe corruption in public sectors but PACC investigates and inspects lower-ranking state officials i.e. those from the Division Director level downward who are accused of corruption in the public sector (PACC, 2016a).

3) The Office of the Auditor General of Thailand (OAG)

OAG is an independent anti-corruption organisation under the constitution which solely sets its own direction and scope of audit (OAG, 2016). The OAG has powers and duties to audit all government agencies to ensure financial control of public funds (OAG, 2016). Specifically, the organisation is responsible for auditing reports on revenue and expenditure, providing comments on whether they are in compliance with the law and directly reporting them to the Prime Minister (OAG, 2016).

The data is collected from (i) the agencies' official websites i.e. <https://www.nacc.go.th> (NACC), <http://www.pacc.go.th> (PACC), and www.oag.go.th (OAG) and (ii) directly requested from each agency. While there are some statistics on corruption reports on the websites of the agencies, most of the detailed data is not published. To obtain more data relevant to this study i.e. cases concerning public procurement and/or public expenditure, official letters were sent to the heads of the three agencies to request records. Statistical data requested from the anti-corruption agencies in Thailand can be found in Appendix 8. Overall, the requested data to support the interview findings is as follows:

- The number of corruption cases reported through:
 - traditional channels: in-person visits, post, e-mail, telephone, and fax
 - online channels: online form via the official website, and social media
 - other channels (if any)
- The number of reports that were rejected and accepted for further investigation
- The number of anonymous reports

The analysis of e-whistleblowing platforms used data from semi-structured interviews and statistics on suspected corruption provided by public anti-corruption agencies in Thailand. However, due to quantitative data limitation, the findings in this study rely heavily on the qualitative data and the quantitative data are used to support some of the qualitative findings.

A limitation of this study concerns the use of quantitative data which is recorded by the main public anti-corruption agencies in Thailand. Firstly, it should be noted that the number of corruption cases reported to the PACC, NACC, and OAG may not be equivalent to all corruption in public procurement in the country as some cases remain unreported. Secondly, the agencies cannot provide all the requested data (Appendix 8) due to their recording and categorisation systems. Some requested data have not been recorded and some are mixed up. For example, the number of cases reported through telephone, e-mail, and the website of the OAG are classified in the same category which mixes up the records of traditional (telephone and e-mail) and online (website) platforms. Moreover, the records of the NACC also include all types of corruption rather than cases concerning only public procurement. Therefore, not all key qualitative findings in this study can be supported with statistical evidence. Table 5-1 below summarises the research methods used in this study.

| Research Methods | | |
|-------------------------------------|--|---|
| Anti-corruption Strategies | <ul style="list-style-type: none"> • Managerialism: preventive approaches | <ul style="list-style-type: none"> • Interventionism: repressive approaches |
| Anti-corruption Tools | <ul style="list-style-type: none"> • E-bidding | <ul style="list-style-type: none"> • E-whistleblowing platforms |
| Research Questions | <ul style="list-style-type: none"> • Does e-bidding reduce the risk of corruption in public procurement? | <ul style="list-style-type: none"> • Are e-whistleblowing platforms effective anti-corruption tools in detecting corruption in public procurement? |
| Hypotheses | <ul style="list-style-type: none"> • Managerialist hypothesis: e-bidding does not reduce the risk of corruption in public procurement. | <ul style="list-style-type: none"> • Interventionist hypothesis: e-whistleblowing platforms are not effective anti-corruption tools in detecting corruption in public procurement. |
| Research Designs | Qualitative research <ul style="list-style-type: none"> • In-depth, semi-structured interviews | Qualitative research <ul style="list-style-type: none"> • In-depth, semi-structured interviews |
| | Quantitative research <ul style="list-style-type: none"> • Analysing the public procurement database | Quantitative research <ul style="list-style-type: none"> • Analysing key statistics and trends regarding the use of traditional and online reporting platforms to report corruption |
| Data Collection and Sampling | Qualitative research (purposive sampling) <ul style="list-style-type: none"> • Key informants: 31 public procurement officers across 21 ministries | Qualitative research (purposive sampling) <ul style="list-style-type: none"> • Key informants: 16 public authorities across 12 public anti-corruption agencies |
| | Quantitative research <ul style="list-style-type: none"> • Contracts awarded by 160 pilot government agencies across 21 government ministries which are auctioned through e-auction and e-bidding systems <ul style="list-style-type: none"> ○ E-auction: 16 Feb 2014 - 15 Feb 2015 ○ E-bidding: 16 Feb 2015 - 15 Feb 2016 | Quantitative research <ul style="list-style-type: none"> • Number of reported corruption cases through traditional and online official channels of main anti-corruption authorities in Thailand: the PACC, the NACC, and the OAG |

Table 5-1: Summary of Research Methods

Chapter 6 E-government Procurement Systems: Qualitative Analysis

6.1 Introduction

This chapter presents a qualitative analysis of the two public procurement systems in Thailand i.e. e-auction and e-bidding. The key findings derived from semi-structured interviews with Thai public authorities in charge of public procurement. E-bidding is claimed as a more transparent procurement system, compared to e-auction as the functions of e-auction include both online and offline process while all procedures of e-bidding proceed online. Therefore, the interviews were conducted to explore the effectiveness of the online process of e-bidding and answer the research question 1 of whether e-bidding reduces the risk of corruption in public procurement. It was also expected that the interviews might identify new areas beneficial for the study.

The chapter covers six main sections. Following this introduction, Section two to Section Six present qualitative findings on such topics as: (i) electronic procurement as a key to success in preventing corruption in public procurement; (ii) the impact of the use of online procurement systems such as e-bidding to facilitate competition and prevent corruption; (iii) the key problems of e-bidding; and (iv) the limitations of online procurement systems. The last section presents a summary of this study.

6.2 Electronic Procurement as a Means to Prevent Corruption

As was pointed out earlier, the key difference between e-auction and e-bidding is that all procedures of the latter take place online. In particular, all stages of the official-bidder interaction proceed online. The online process of both systems starts from government agencies publishing terms of reference (TOR) via the official procurement website. For e-auction, bidders purchase bidding documents (a detailed document providing all information about goods or services requirements) and later submit technical offers at the procuring agency (Official 113). Only qualified bidders whose offers pass the evaluation criteria are allowed to participate in an electronic reverse auction⁸ at a specific service provision place where bidders bid against their competitors for contracts within 30 minutes (Official 113). For e-bidding, bidding documents are available to download (mostly free of charge) via the website only (Official 107). Both technical and price offers must be submitted together at the same time through the website,

⁸ A reverse auction is the process in which at least two bidders compete on prices to win a government contract. During the auction, the prices can only decrease and the winner will be the bidder who submits the lowest bid.

normally within one day during office hours i.e. 8.30 a.m. to 4.30 p.m. (Official 125). Key procedures of e-auction and e-bidding are compared in Figure 6-1 below.

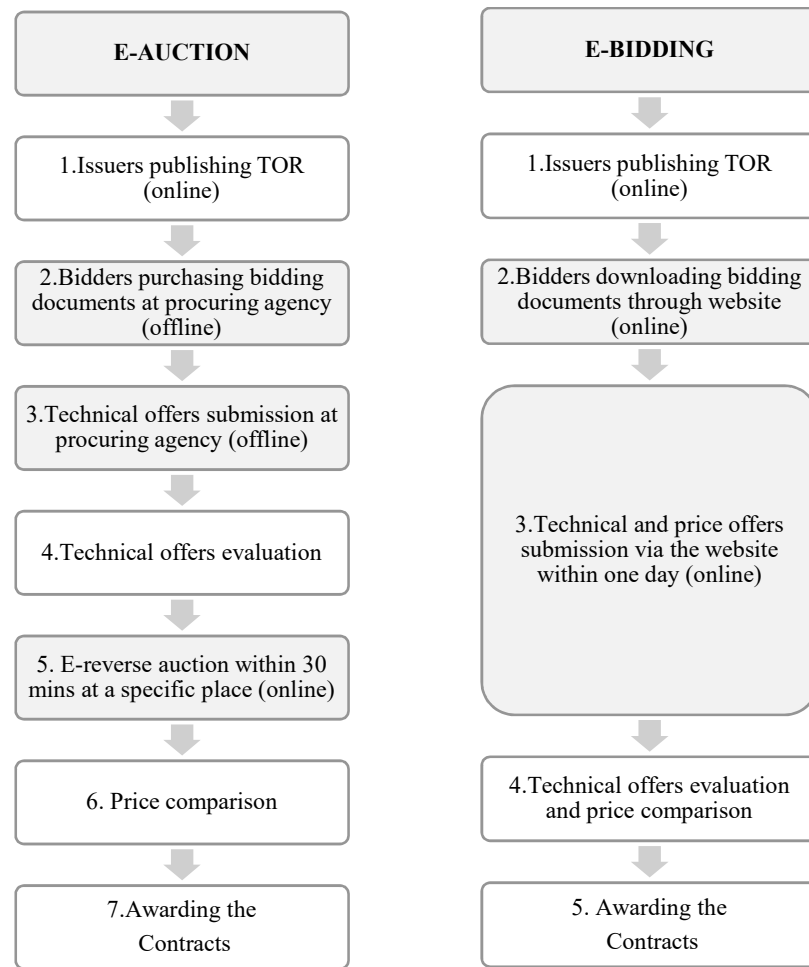


Figure 6-1: Comparison of E-auction and E-bidding Procedures

According to the interviews, the use of online procurement systems or e-bidding aims at increasing *transparency* and replacing a face-to-face interaction process with an *electronic interaction process*. The government found that some procedures of public procurement systems in the past were not transparent which encouraged corruption. One interviewee pointed out that “as it is widely believed that procurement activities take place through a black box process ... therefore the development of electronic public procurement in Thailand initially focused only on transparency” (Official 107).

In the government's view, transparency can be improved in the sense of *information openness* and *accessibility* (Official 107). One interviewee explained the difficulty of data accessibility in the past and why transparency was a key driver of public procurement improvements:

“In the past [before the use of e-auction], firstly, suppliers needed to visit procuring agencies to look out for an announcement about public procurement contracts e.g., TOR which would be posted at a specific place in the procuring agencies. Secondly, the announcements would be sent to the Government Public Relations Department for advertising on the radio which of course people were unlikely to listen to. And there were some budget constraints [for advertising] as well ... Later, the procuring agencies were forced to publish their announcements [both e-auction and e-bidding contracts] via the online systems [www.gprocurement.go.th] ... and this was considered as transparency.” (Official 107)

According to the information provided by the respondent above, even though the TOR of e-auction contracts were published online which implies information openness or transparency improvement to some extent, it was unlikely to prevent corruption as some interviewees pointed out that other important information still remained hidden. E-bidding, therefore, was developed in which digital technology was integrated to solve the transparency issues of e-auction by increasing information openness and accessibility through the use of online channels. Official 112 provided an example of the improvements:

“Previously, we did not publish the reference prices unless there was a formal request from a bidder... Since the use of e-bidding, it was required that the prices must be announced online ... So, I could say that this improved public procurement transparency because we revealed all [information relevant to bidding].” (Official 112)

Based on the drawbacks of e-auction, however, transparency alone was not an anti-corruption panacea in public procurement as the offline procedures seemed not to facilitate competition and led to collusion and corruption. According to one interviewee, in most cases, it was found that the root cause of corruption in public procurement was the bidding process which created opportunities for face-to-face interaction among bidders and between officials and bidders (Official 107). Hence, another core objective of e-bidding is to prevent such potential interaction (Official 121) through the use of the online process.

The two key factors of e-bidding mentioned above, i.e. more transparency and the electronic interaction process, give the CGD (2015a) confidence that e-bidding helps reduce collusion and

corruption more than e-auction. The next section will evaluate the impact of the two factors in detail.

6.3 Impact of the Use of Online Procurement Systems: E-bidding to Facilitate Competition and Prevent Corruption

This section analyses and compares the effectiveness of e-auction and e-bidding in facilitating competition and preventing corruption in public procurement. Specifically, I present loopholes in e-auction procedures which are claimed as the causes of corruption and how the online functions of e-bidding or the higher degree of data openness/accessibility and the electronic interaction procedures can overcome the problems.

According to the interviews, the positive impact of the online functions of e-bidding are an increasing number of bidding participants, more budget savings, and an increasing risk of being detected. In the other words, three key indicators that signal probability of corruption in public procurement, as suggested by the interviewees, include (i) low number of potential bidders' participation; (ii) fewer budget savings than expected; and (iii) the unavailability of mechanisms to monitor the public procurement process.

6.3.1 E-bidding to Increase the Number of Potential Bidders' Participation

It is recognised that inconvenience and high costs create a barrier to entry which discourage potential bidders' participation. Some interviewees mentioned distance as one of the main obstacles of potential suppliers who are in different areas to the procuring agencies: "It's inconvenient and incurs necessary travel expenses. They can't beat firms located in local areas" (Official 131). One interviewee explained such inconvenience:

"For those who were interested in bidding for e-auction contracts, they were required to pick up/purchase bidding documents and fill in the form at the procuring agency. Once they had reviewed the documents and decided to participate, they needed to travel back again to the agency [to submit the offers on specific date]." (Official 107)

The high costs of participation are another problem in addition to the distance. One official gave a typical instance that negatively affected competition in e-auction:

“I once found that bidding documents were sold at THB 30,000 [around GBP 670] which means paying THB 30,000 for just buying an opportunity to participate in that bidding. In fact, if bidders first had a chance to review the documents and knew the bidding details, they might not come to buy. These [costs of participation and inconvenience] indeed keep newcomers out of competition.” (Official 107)

As all procedures proceed online, e-bidding is more likely to facilitate equality of bidders’ opportunities. As mentioned earlier, e-bidding enables potential bidders to download bidding documents mostly free of charge and submit bids (technical and price proposals) from anywhere via the official procurement website. It is not surprising that e-bidding helps encourage the participation of potential bidders and boost competition. Many interviewees confirmed that the number of downloads for bidding documents were significantly increasing, 20-30 downloads per contract for instance (Official 112). Two interviewees explained why e-bidding encouraged newcomers into competition by comparing the two systems:

“Previously, bidding documents for e-auction contracts were not free. As a bidder who seemed not to be qualified, would you risk buying the documents? What would you buy it for? But you can get e-bidding documents for free. Then, it’s like I’m not sure whether I’m qualified, but this is for free. So, I will take it anyway just in case.” (Official 102)

“The number of newcomers receiving bidding documents for e-bidding contracts is much higher than e-auction because bidders for e-bidding contracts can download and view the documents straight away. They also can decide later whether or not to participate and this does not incur any additional cost.” (Official 119)

When accessing the information is easier and cheaper and participation is more convenient as a result of the increasing data openness and accessibility, the degree of competition is consequently said to be higher. One interviewee said of an increasing number of bids received from newcomers:

“E-bidding does increase competition as small and medium-sized enterprises [newcomers] which are located in other provinces have participated in bidding ... A firm in Chiang Mai [a province situated in Northern Thailand] can submit offers online from their office ... [For e-bidding] once you’re ready, just upload and submit your proposals online. We’ll check it and you [the winning bidder] just come to meet us on the day of signing the contract.” (Official 106)

Figure 6-2 below summarises the purported improvements of e-bidding in increasing competition in public procurement.

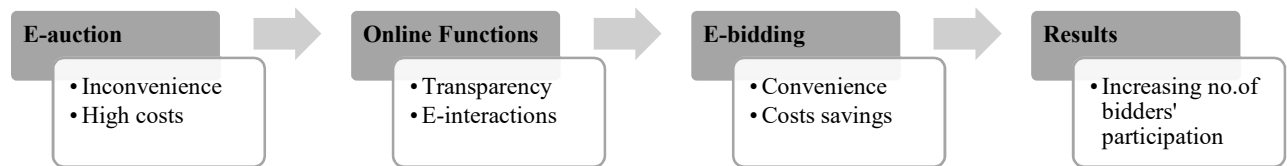


Figure 6-2: The Purported Impact of Procurement Systems I

6.3.2 E-bidding to Increase Budget Savings

In this study, the indicator signalling that there might be low competition are the low number of bids proposed and also fewer budget savings than expected. One respondent pointed out that:

“With most of the construction contracts in the past, the lowest-price tender was just one percent lower than the budget, which implied that there was no competition. We never knew whether Mr.A got to meet Mr.B [making a collusive agreement] but the very low amount of budget savings reflected the fact that a problem [collusion] existed. And there were two possible reasons: the very likely accuracy of reference prices or no competition.” (Official 107)

Not surprisingly, *bid-rigging* among bidders and *collusion* between officials and bidders were perceived as one of the most serious problems in public procurement. 21 interviewees in 19 government departments mentioned high levels of collusion and bid rigging in e-auction contracts. “To increase the amount of the winning bid and thus the amount that the winning bidders will gain”, suppliers normally agree on a pre-bid negotiation (OECD, 2009a: 1). They propose fake bids while the pre-selected firm proposes the winning bid to win a contract through the illusion of a competitive bidding process (OECD, 2009a: 1). Hence, anti-competitive activities lead to fewer budget savings for the government.

As mentioned earlier, the process of e-auction creates opportunities for face-to-face interaction among bidders and between officials and bidders and thus results in bid-rigging and no competition (Official 107). Such opportunities are found in three cases as follows:

- bidders and bidders
- bidders and officials of the procuring agency
- bidders and staff organising the e-reverse auction at a service providers’ office

In the first case, as bidding documents for e-auction contracts are available to purchase at the procuring agencies only, information accessibility is limited, and it is easy for bidders to meet each other. Official 107 indicated that “the process of collusion among bidders starts with knowing who your competitors are or the ones who come to buy the bidding documents. This will help you [bidders] to identify who could possibly win the contract.” In the case that there is no collusion between officials and bidders, one official recalled a cycle of collusion that one bidder told him about:

“Without any help from officials, it’s still very easy to get a list of potential competitors. For example, you came early to [the procuring agencies] to buy the documents and waited around. You would see who else came to buy the documents ... You could later contact each of them [making a bid-rigging agreement] ... Normally, these buyers were the firms whom you already knew, or you already had a strong connection with them.” (Official 107)

In the case that there is official-bidder collusion in e-auctions, bidders who have strong connections with officials would be informed who their competitors were, or they might call the officials for a list of the qualified bidders (Official 101). As previously stated, technical proposal submission and price submission (e-reverse auction) for e-auction contracts are held on different days. Consequently, the name lists of potential competitors or qualified bidders would be known prior to the price submission as a result of face-to face interaction between officials and bidders, allowing bidders to have a pre-bid negotiation with their competitors (Official 103).

For the last case, the e-reverse auction procedure at a specific service providers place is also perceived as a loophole of e-auctions (Official 125). Normally, a list of bidders would be sent to the e-reverse auction service providers one day in advance to prepare rooms for the bidding activities (Official 130). Therefore, collusion could occur.

The three situations above create an opportunity for bidders to know their potential competitors ahead of time. In addition, competition could not occur when there was only one bidder for an e-auction contract because e-reverse auction needs at least two bidders to compete with each other within 30 minutes (Official 103). One interviewee explained what happens when there is only one bid by stating:

“Once you know that you are the only one bidder who is bidding for the contract, of course you won’t propose the low-priced tender. The procurement regulation identifies that if there is a single bid proposed for e-auction contracts, the e-reverse auction should be annulled [unless the procurement committee considers that it is a necessity] and the procuring agency would negotiate on price with that bidder instead.” (Official 107)

For e-bidding, as mentioned earlier, the system is developed purposely to prevent potential suppliers and officials having a face-to-face pre-bid meeting (Official 102 and Official 121) to reduce the risk of bid rigging and encourage competition. Most respondents in this study confirmed that all the problems mentioned above are completely solved by the implementation of the online procedure of e-bidding.

Firstly, e-bidding documents can be downloaded via the central procurement website and offers must be submitted online, thus eliminating the opportunity for bidders to know their competitors (Official 101). Secondly, during the online document downloading and submission periods, the officials of the procuring agencies are unable to view which firms have downloaded the documents and submitted the proposals as the systems are blocked by the CGD (Official 106). This is perceived as an advantage for the officials as one interviewee commented:

“In fact, in the opinions of citizens, procurement officials are more likely to be perceived as a bribee. So, when the [e-bidding] systems eliminate the opportunity for face-to-face interaction between officials and bidders, it saves us from serious reputation damage.” (Official 102)

Thirdly, the e-reverse auction procedure is replaced by technical and price submission via the website. The new functions remove third-party service providers from the bidding process (Official 110) and thus the opportunity of staff-bidder collusion is eliminated.

Therefore, an opportunity of knowing potential competitors prior to tender submission is eliminated, which adds pressure to the bidding and indirectly forces bidders to propose the lowest-price bid that they can offer. For a competitive e-auction, bidders have multiple opportunities to bid against their competitors within the 30-minute e-reverse auction (Official 102) which means they have several chances to propose a price. On the other hand, bidders have only one chance to submit a price offer through the e-bidding systems (Official 102) which means there is no second chance for them.

In addition, one interviewee compared the case of a single bid received awarded through e-auction and e-bidding: “Unlike e-auction, during the online submission period, bidders for e-bidding contracts never know that there is no other firm submitting the tenders. Consequently, they have to keep the proposed price low in order to be awarded the contract” (Official 107). One interviewee also explained how e-bidding reduces the risk of collusion between bidders and bidders:

“E-bidding is like a game that isn’t letting any bidder know they have competitors and who these competitors are. That’s why bidders have to propose the best offers to government agencies ... Even if there is a group of bidders making a collusive agreement, these people can’t be sure that there are no other competitors participating ... then competition occurs.” (Official 103)

Figure 6-3 below summarises the purported impact of e-bidding in increasing competition and budget savings.

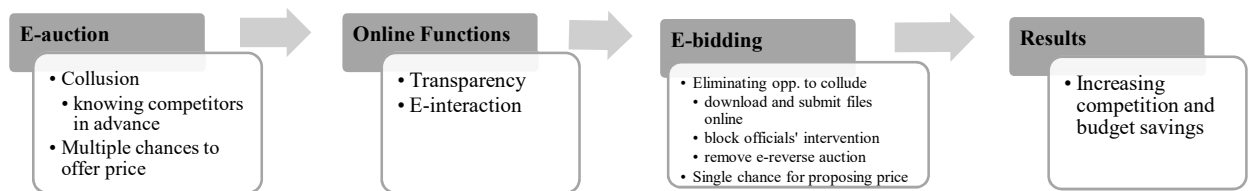


Figure 6-3: The Purported Impact of Procurement Systems II

For the government, the success of e-bidding thus far is measured by an increase of the amount of budget savings compared to e-auction. It was reported that contracts awarded through e-auction generated approximately 5-6 percent on average in budget savings (Official 107). On the other hand, government agencies saved approximately 11-13 percent for contracts awarded through e-bidding system (Official 107).

Even though e-bidding helps increase budget savings, it is found that more budget savings might lead to negative consequences and negatively affect the operation of government agencies. According to Official 103 and Official 107, to protect themselves from an inspection by the Office of the Auditor General of Thailand (OAG), most procuring agencies have no choice but to award the contract on the basis of price. This encourages bidders to undercut competitors’ prices which means some bidders propose unreasonably inexpensive products and services. One interviewee related a recent experience where:

“Over the past few years, the prices of many contracts awarded [through e-bidding] were much lower than the usual price ... Major projects [construction] required two to three years to complete. The works went well during the first year, but we found serious problems in the second and third years. For example, there was little progress in the construction or firms abandoned the construction. According to my experience, for the contracts awarded in 2017, I am sure that we will face such problems in 2018, 2019, and 2020.” (Official 125)

Official 125 also believed that a recession in the country and the unstable global economy were the causes of the problem to some extent. He recalled his conversation with one bidder:

“I once asked a bidder whether can they really afford the project as the price they proposed was like 50 percent lower than the reference price. For example, the reference price was THB 540 million, but they bid for THB 270 million ... and the firm said “Suppose we didn’t get the job, we still have machinery which would depreciate over time without generating revenue. We have to pay salary [without revenue] to keep the employees with us for the projects in the future ...” So, a net loss for this project appeared to be an acceptable alternative for them ... In my perspective, more budget savings weren’t always a good sign.” (Official 125)

6.3.3 E-bidding to Increase the Risk of Being Detected

According to the interviews, the availability of the online services facilitates citizens playing an active role in monitoring suspected illegal activities. For example, people can keep track of the bidding activities and transactions at any time which increases the risk of being caught. One interviewee mentioned how the availability of all information relevant to e-bidding on the procurement could prevent corrupt activities:

“The government tries to incorporate transparency into public procurement ... At least there must be an online system available for citizens to use for monitoring. Even if a majority of citizens seems not to be interested [in monitoring], the availability of such systems would be like drawing a picture of a tiger to scare the cattle [this apparently means that a threat is sufficient to keep some potential corrupt officials and bidders in line] ... Then every process must be able to be monitored [by anyone] via the official procurement website.” (Official 107)

The online functions might not only help prevent corruption from occurring, but also detect illegal practices. As the persons who are in charge of public procurement in their departments, most interviewees strongly agreed that the online process of e-bidding completely blocked the opportunity of officer-supplier interaction during the bidding process. However, corrupt activities do not take place only during the bidding process and could occur after product or

service specifications have been drafted (Official 121). A biased TOR is unlikely to allow for substitute products and thus winning the contract is guaranteed without further corrupt activities needed during the online bidding process (Official 121). For single bid contracts, Official 121 put it by saying: “Regardless of how many times you cancelled and relaunched bids, for some products you will always have only one proposal submitted.”

As was the case with e-auction contracts, the TOR of e-bidding contracts are also published online so that citizens can make suggestions. As previously mentioned, the use of e-bidding leads to a higher number of potential suppliers’ participation compared to e-auction e.g., a large increase in the number of downloads for e-bidding documents. This, however, might increase the probability of corrupt activities being detected. Importantly, the availability of the online services also reflects the effectiveness of the procurement systems. As one respondent remarked:

“We cannot and it’s impossible to prevent collusion. It’s impossible that all bidders [except the pre-selected bidder] will propose exactly the same price, the same last digit, in a hundred million Baht contracts...but this happened even in e-bidding.” (Official 125)

Importantly, this shows that monitoring is impossible if the procuring agencies keep information confidential, thus allowing misconduct and the symptoms of an ineffective procurement system to go unnoticed. Openness and accessibility of information make it easier to detect suspicious activities.

Figure 6-4 below summarises the improvements of e-bidding mentioned in this section.

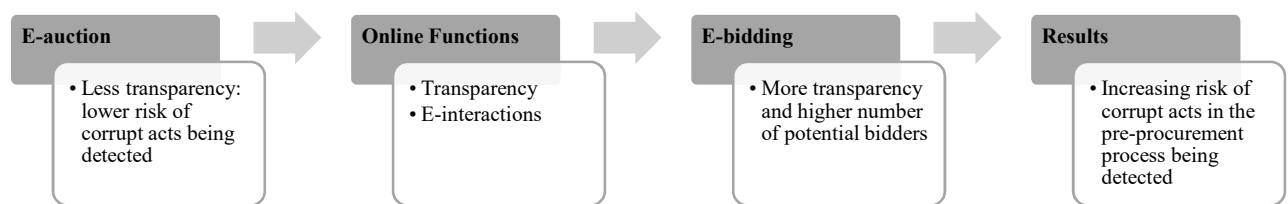


Figure 6-4: The Purported Impact of Procurement Systems III

To conclude this section, it is likely that e-bidding encourages more competition and prevents corruption better than e-auction as the major problems, i.e. less transparency and face-to-face interaction, have been dealt with. However, there are several main problems with e-bidding which were identified by the interviewees. The next section will present factors that affect the

participation of potential suppliers (single bid received) and bid evaluation (single bid valid) in e-bidding.

6.4 Key Problems of E-bidding

According to the interviews, the following four issues are the key factors associated with low competition in e-bidding.

- IT problems
- A period of unfamiliarity
- Special cases
- E-auction and e-bidding characteristics: e-reverse auction vs price submission online

6.4.1 IT Problems

As e-bidding is a new system which has been used since February 2015, IT problems and the unfamiliarity of bidders are found to be the main causes of the high number of single received and single valid bid contracts. An unstable Internet connection, a system bottleneck, and the inflexibility of e-bidding systems were the IT problems pointed out by the interviewees that created a period of high numbers of single received and single valid bids. Firstly, in the earlier period of the use of e-bidding, bidders generally had three days to download the bidding documents (days 1-3), another three days for preparing their proposals (days 4-6), and one day during office hours to submit the documents online (day 7) (Official 107). As many bidders had a lot of content to upload, officials then received a number of bidders' complaints that they were unable to submit proposals through the website on time due to Internet connection problems (Official 111).

According to Official 107, to fix the problem, the rule was later changed so that files could be uploaded after bidders had downloaded the bidding documents in day 1. They could also save and upload additional files until day 7 at 4.30 p.m., which was the cut-off point to submit tenders. This meant that bidders would have more days for preparing and uploading the documents and any issue related to the time constraints could be solved.

However, a system bottleneck was identified as another obstacle for bidders to submit bids on time. It was found that a number of bidders submitted proposals very close to the end of the

submission period which consequently led to a high number of single received and single valid bids. One interviewee said of the limited flow of data during the peak submission times:

“All tenders [of any procuring agencies] are submitted through only one official procurement website. And even though tenders can be submitted anytime within one day [during the office hours 8.30 - 16.30 hrs.], always suppliers tend to submit the documents between 16.00 and 16.30.” (Official 125)

Thirdly, the online document submission was considered an inflexible part of the e-bidding process. According to Official 105, online checking of documents was not provided which resulted in some unintentionally incomplete tenders. Official 103 commented on the inflexibility of e-bidding: “Unlike e-bidding, documents for e-auction were submitted in person so that all can be checked and double checked before submitting”. In addition, two interviewees referred to their experience regarding the IT problems which caused a high number of single received and single valid bids:

“One problem with e-bidding was the difficulty in uploading and submitting documents online... Internet systems in the country were sometimes unstable ... Technical offers of some contracts consisted of hundreds of pages of documents ... In case of system error, bidders sometimes submitted incomplete documents without realising it and their tenders were automatically disqualified.” (Official 103)

“Normally, we fill in the TOR information through an online form on which bidders can make suggestions when it is posted online. However, we found that sometimes some important information e.g., our telephone or fax number, which was the fastest way bidders could contact us to make a complaint, didn't appear in the system ... Suppose the procuring agency was a sub-division [of Ministry A]. A complaint letter would be sent to the Bureau of Central Administration [of Ministry A] and three days later it then would be sent to that procuring agency. But this was too late because the suggestion period had already been closed. This affected their participation and the chance of winning the contract.” (Official 129)

6.4.2 A Period of Unfamiliarity

In this study, unfamiliarity with the full online bidding procedures was another problem bidders and officials encountered during the early period of the use of e-bidding. One interviewee explained the cause of single bid contracts:

“Unlike previously, bidders are required to register with the Comptroller General's Department in order to bid for e-bidding contracts. Once the government agency posted the TOR, some bidders realised that they needed to register before they could download

the bidding documents. And they couldn't complete the registration before the end of submission period. So, they couldn't participate and then some contracts had only a few proposals." (Official 102)

In addition, information mismatch was pointed out by some interviewees resulting in a number of single valid bid contracts. In the evaluation phase, one process is to check (i) information about bidders e.g., information contained in a Memorandum of Association, which is added onto the system by bidders as part of a government database and needed regular updates and (ii) bidding documents e.g., technical and price offers and other specific documents for each bidding contract (Official 112). As incomplete or incorrect documents would be disqualified, the interviewee referred to the difficulty in assessing e-bidding tenders which seriously affected the number of valid bids:

"When we evaluated the tenders, we found an information mismatch between the information in the database and the documents submitted ... Moreover, sometimes bidders mis-keyed some information or some information which should be contained in the database was missing ... These were some problems which the committee faced when deciding whether the tenders should qualify or not." (Official 112)

As e-bidding was a brand new system at that time, the users needed time to adapt to the online process. Hence, it was not surprising if there were a high number of single received and single valid bids during the earlier period of the use of e-bidding. One respondent referred to the procurement situation at that time:

"During the first year of the use of e-bidding, there were so many big problems for both government agencies and bidders. There were some misunderstandings, for example, the rejection of bids [in the evaluation phase] which caused a lot of confusion among bidders ... The first year of e-bidding was actually a period that we should turn a blind eye to ... Because to some extent the users were not ready yet. They were not familiar with the systems." (Official 107)

6.4.3 Exceptional Cases

According to the interviews, expiration dates of budgets was one reason for single bid contract awarded by some procuring departments. Normally, government agencies have budgets that expire at a specific time. With uncertain future expenditure, it is likely that they are forced indirectly to spend their budget before its expiration. One interviewee said that this particular case seldom occurred, but it was one reason for awarding contracts when only a single bid qualified:

“Because we had received budget support many years ago [the budget was about to expire], ... if we cancelled the single received bid [which passed the evaluation criteria] ... we risked having our budget cut. We rushed to spend these funds ... And the committee considered that we shouldn’t start the e-bidding process all over again.” (Official 112)

6.4.4 E-auction and E-bidding Characteristics: E-reverse Auction Vs Price Submission via Website

As was the case with single received bids for e-auction contracts, single received bids for e-bidding contracts are also acceptable in cases of necessity permitted by the procurement committee (Official 101). However, due to the high number of suspicious corruption cases, contracts awarded by all government agencies are placed under a microscope. Single bid contracts for both e-auction and e-bidding are normally at risk of being investigated by the OAG and thus, unless necessary, such bids would be cancelled and relaunched (Official 103). This information may, to some extent, explain the necessity of the illusion of a competitive bidding process or collusion among bidders for both e-auction and e-bidding.

However, it is found that the different characteristic of price submission processes between e-auction and e-bidding might lead to a higher number of single bid contracts with e-bidding than with e-auction. According to some interviewees, for their departments, if only one bid was proposed for e-auction contracts under normal circumstances, it was likely to be cancelled and relaunched while this did not apply to single bids for e-bidding contracts (Official 106). One interviewee explained why the number of single bids awarded through e-bidding was higher than e-auction:

“Normally, unless the procurement committee considered that it was a necessity, the procuring agency would annul the tender [both e-auction and e-bidding] ... Because competition could not occur when there was only one bidder [in e-reverse auction⁹] ... We needed at least two bidders to compete with each other [within 30 minutes]. For e-bidding, one [qualified] proposal was fine [no need to cancel and relaunch the bidding process].” (Official 103)

In conclusion, the four factors presented above are the causes of low competition or the high number of single bid contracts in e-bidding according to the interviewees in this study. However,

⁹ When a procuring agency decides not to proceed with e-reverse auctions and not to relaunch the bids, a price negotiation will be used.

as the server of e-bidding has been improving (Official 129) and suppliers are more active and learn from their mistakes after losing a contract (Official 107), IT problems and the unfamiliarity of the users should gradually reduce over time. Thus, it is more likely that competition in e-bidding should increase in the long run.

A high incidence of single bid contracts with e-bidding may have resulted from the latter two factors i.e. budget management and the characteristic of tender submission. These should be considered as ‘loopholes’ in the procurement regulations for e-bidding. Moreover, the interviewees mentioned other problems found in e-bidding which could be considered as limitations of the online procurement systems in encouraging competition. The obstacles will be presented in the next section.

6.5 Limitations of Online Procurement Systems

According to the interviews, the following issues were identified as limitations of e-bidding in increasing competition and suppressing corruption in public procurement:

- Ability of firms to operate in a digital economy
- Limited number of suppliers in a market
 - Ability of firms to execute mega projects
 - Types of product/service
- Collusion among firms and between officials and firms

6.5.1 Ability of Firms to Operate in a Digital Economy

The first obstacle to the success of e-bidding or online procurement in encouraging competition in public procurement is the ability of firms, especially in developing countries, to adapt themselves to a digital business environment. Nowadays, digital technology is significantly impacting the way firms conduct business. In Thailand, the change to online procurement systems might produce obstacles for some bidders as well as increasing the number of newcomers to the competition. However, this does not include those small firms which are unable or unwilling to adapt themselves to the new systems.

According to one interviewee (Official 109), submitting documents via online channels were too complicated for some small firms in Thailand. Another interviewee (Official 120) agreed that e-bidding increased opportunities for newcomers but the online systems were a barrier for

small firms as some small bidders did not even know how to register via electronic procurement systems. Importantly, when the procurement systems were upgraded, firms needed technical officers e.g., legal professionals and IT specialists whom some small firms were not in a position to hire (Official 120 and Official 121).

6.5.2 Limited Number of Suppliers in the Markets

According to their experience, some interviewees held the view that sometimes competition is not different between e-auction and e-bidding. Specifically, compared to e-auction, e-bidding does not help increase competition when (i) the contract value is high and (ii) government agencies purchase complex products. This is because the number of bidders who have experience in a particular kind of work and are qualified to bid for the government contracts is limited (Official 125).

In the first case, Official 125 explained that if a government department has a mega project such as a thousand million Baht contract, and there are about 200 potential bidding firms across the country, with either e-auction or e-bidding, the participating bidders would be among these 200 firms only. In the second case, the type of goods or services also affected the number of bidders participating in public procurement regardless of the procurement methods. According to Official 125, sometimes the extent of competition depends on the government agency. As each agency has different responsibilities, some of them require more non-standardised products. One respondent explained how low competition in his department was associated with certain product types:

“Our department normally uses technical, unique, or special products in which there are fewer suppliers or authorised agents in the market. If the parent companies [international firms] have not authorised them, they cannot bid for our contracts. Mostly, the required products are imported from other countries. So usually there are experienced bidders bidding for our contracts.” (Official 123)

The information provided by the officials above indicates that for some cases, e-bidding does not help increase competition. However, ‘not increasing competition’ does not mean that a contract is awarded on the basis of a single bid, but that the participating firms are most likely to be veteran bidders rather than newcomers. Therefore, competition might be high (a high number of bids submitted) but the online system of e-bidding still does not bring in newcomers.

6.5.3 Collusion between Officials and Firms and among Firms

Even though the online process prevents bidders and officials from meeting each other, there are signs of collusion such as some bidders proposing the same prices for high value contracts (Official 125). According to the interviews, the implementation of an online system could help prevent corruption in public procurement to some extent. All of the interviewees pointed out that an e-bidding system effectively prevented collusion between officers of the procuring agencies and suppliers because all data is submitted directly to the CGD via their website. However, there are some external factors contributing to collusion or anti-competitive activities that are beyond the ability of the online system to prevent. This section presents why corruption can still take place in electronic public procurement.

Firstly, collusion between suppliers and procurement officers and system hacking are not impossible. Some interviewees pointed out that the official-supplier interaction during the online process, in fact, still exists. However, officials in this context are not the officials in the procuring agencies, but the ones who control the online systems. As the official of the procuring agencies are blocked from viewing the information during the downloading and submission periods, Official 125 commented: “Now the problem has moved to the CGD, because corrupt suppliers will contact hackers instead of us for the lists of participants.” Moreover, if such cases exist in e-bidding, the situation could be getting worse than e-auction. One interviewee said of the possible effects resulting from the leakage of information:

“Once a task is controlled by only one person or one department, if you pay [hackers] money, you could have all the bidding information of all government agencies in the country. But [for e-auction] if you pay the officials in the government agency A, you’ll get only the information of their agency, not agency B or agency C.” (Official 129)

As indicated previously concerning the system bottleneck problem of e-bidding, one questionable point is that even though bidders have several days for uploading documents, why do many of them choose the last 30 minutes to submit their tenders? One official explained why such cases made him believe that collusion was hard to prevent:

“When bidders submitted tenders online for the same contract at the same time [e.g., 16.30 hrs.], anyway the systems would arrange the tenders submitted automatically [based on the unit of time set i.e. hours, minutes, and seconds]. We had to check who came first [as winning also depends on the time submitted] e.g., 16.30 12 seconds and 16.30 14 seconds ... and there were cases where tenders were submitted at the same time, at 16.30, and the prices were exactly the same”. (Official 125)

Many firms proposing the same price is more likely to be considered suspicious because it is quite obvious and easy to notice. According to the interviews, however, it is difficult to explain why many tenders were proposed with the same price.

Returning briefly to the submission rules for e-bidding, bidders are allowed to upload the tenders in advance to avoid possible IT problems. Other than the case where bidders have to spend days preparing documents and thus have to upload and submit the files very close to the closing time, there are two other possible reasons to explain why many tenders were sent close to the last-minute submission period. Suppose that officials could connect to the systems during the submission periods. Firstly, to a sceptical bidder, it is safer not to upload and submit the proposal earlier as there is a potential risk of the tender being examined by the others. On the other hand, to a corrupt bidder, holding back the proposal until almost the last minute helps to ensure that they can propose better offers than the other competitors who already submitted the proposals. This would indicate that the effectiveness of e-bidding in preventing corruption is limited. However, no evidence was offered during the interviews to test these hypotheses.

Even though there is no clear evidence of information leakage and it is claimed that the e-bidding system is designed to prevent such problems from occurring (Official 107), some interviewees still believe that information leakage is the key loophole to e-bidding (Official 129). Nowadays, even big financial institutions around the world face massive cyberattacks, many of which succeed in stealing customers' money and data. Thus, even if security programs are put in place to protect the data from unauthorised access, information leakage in electronic procurement could still occur.

Secondly, most interviewees in this study believed that e-bidding cannot prevent collusion among suppliers. According to Official 125, the ultimate goal of every business is to make a profit, not to serve the country. Therefore, mutual consent or collusion between firms to make as much profit as possible is considered a necessary condition in the world of business. According to the interviews, two types of collusion were identified: (i) suppliers' agreements on dividing up the market and (ii) common ownership of the firms that bid for the same contract.

Firstly, market division of key suppliers in the market is one of the factors that limits competition and prevents the entry of newcomers such as small businesses. For some types of product, these suppliers normally make agreements on dividing up customers or territories. One interviewee described a situation of mutual consent and market division:

“Some models of [a product], for example, have fewer dealers and these dealers have made an agreement about who will sell which products to what government departments. This means other competitors or newcomers cannot compete on price. So, we’ll always have the same bidders ... When other suppliers request a quotation from the parent company, they’ll be informed that it is Dealer A who will sell the product to this agency... The parent company actually is the one who allocated purchasers to their dealers ... So, no matter how you proceed with bidding, there will always be the same winners for some products.” (Official 106)

Some respondents mentioned common ownership in bidding in which the bidding firms are not independent and the owner of all firms that bid for the same contract, in fact, are the same person:

“I think that e-bidding could solve the collusion problems of e-auction to some extent. But talking about suppliers, we have no idea if it [e-bidding] works 100 percent with them. Because there are a number of suppliers who set up several companies and these companies bid for the same contract. So, it’s like another collusive bidding scheme.” (Official 119)

6.6 Summary

Based on the interviews, it is assumed that (i) time periods have an effect on the effectiveness of e-bidding in reducing the risk of corruption and (ii) the online functions of e-bidding reduce the risk of corruption less than e-auction.

Firstly, time is the factor that may affect the risk of corruption in this study. On the one hand, e-bidding may decrease the risk of corruption over time. The interview findings suggest that e-bidding may not show the positive effects in increasing competition immediately but only once the systems fall into place. Specifically, IT problems and the unfamiliarity of the users are the key factors that lead to fewer tenders received and which are valid. However, as such problems are mostly found during the earlier period of the use of e-bidding and have been dealt with, e-bidding should heighten competition over a longer period of time.

On the other hand, the findings suggest that changing the procurement system may give rise to new forms of corruption. Corrupt methods to overcome the new online procurement system may be not found at the beginning of its operation, but corrupt bidders and officials would continue to develop and find new techniques at a future date to avoid detection. This study, therefore, assumes that warnings of corruption risk might not show up until later in the use of e-bidding or the warnings of corruption risk in e-bidding might continually increase over time.

Secondly, even though the interviews suggest that on average e-bidding helps in heightening competition by increasing the number of participants and newcomers relative to the e-auction system, online procurement systems are not a panacea for corruption and the effectiveness of e-bidding is limited. Compared to e-auction, e-bidding seems to facilitate more equality of bidders' opportunities by reducing the inconvenience and costs of participation, reducing the opportunities for collusion among parties involved in bidding activities, blocking the opportunity for procuring agencies' official-bidder interaction during the bidding process, and increasing the risk of being detected by publishing relevant information online and providing channels for citizens to monitor the bidding process. When the online procurement system attracts newcomers and increases the number of potential participants whose participation in the bidding increases competition, the risk of corruption in e-bidding should be lower than e-auction.

However, the findings also suggest that e-bidding has several limitations in increasing competition, thus, it may not lower the risk of corruption as expected. Firstly, the online process of e-bidding might be an obstacle for some small firms which lack of ICT skills and are unwilling to enter the market. Secondly, for some bidding contracts in which the contract value is high and/or government agencies require complex products or services, this is a relatively high entry barrier that may block newcomers to enter. More importantly, collusion between bidding firms and public officials and system hacking are still possible in e-bidding. The procurement system also seems not to prevent collusion among potential bidders. In the last case, suppliers can still make agreement in advance to divide the market and bidding firms with a common ownership that bid for the same contracts can propose fake bids to create the illusion of a competitive bidding process.

In sum, the qualitative findings presented in this chapter seem to support the managerialist hypothesis proposed in Chapter 4. The use of e-bidding to replace e-auction, which is inspired by principal-agent theory, is less likely to reduce the risk of corruption in public procurement. In order to test this hypothesis more objectively, the next chapter will present a quantitative analysis of e-auction and e-bidding. The improvements of e-bidding over time and the effectiveness of e-bidding system against the e-auction system will be investigated.

Chapter 7 E-government Procurement Systems: Quantitative Analysis

7.1 Introduction

This chapter presents a quantitative assessment of e-auction and e-bidding and tests the managerialist hypothesis. The chapter is organised into six sections. Following this introduction, the second section presents corruption strategies and corruption risk in public procurement. Section Three reveals corruption risk measurement methodology in addition to what have presented in Chapter 5. Section Four presents key descriptive statistics of the risk of corruption in e-bidding and e-auction. The hypothesis testing in binary logistic regression and linear regression models is based on a Thai public procurement database built by the author to analyse 6,738 e-auction and e-bidding contracts and are presented in Section Five. The last section is a discussion and a summary of the qualitative and quantitative findings of the electronic procurement systems in this study.

7.2 Corruption Strategies and Risk of Corruption in the Public Procurement Process

Based on corruption theories, the Thai context, and the qualitative findings presented in the previous chapters, this study assumes that e-bidding does not reduce the risk of corruption. In order to test such hypothesis more objectively, the following parts of this section explain issues relevant to the quantitative analysis to evaluate e-procurement systems. Firstly, corruption strategies and three quantitative indicators of a corruption risk in the different stages of public procurement process proposed by Fazekas et al. (2013b) i.e. single received bid, single valid bid, and winners' market share, will be revealed in detail. Secondly, the term 'risk of corruption' used in this study and the rationale for using the three outcome indicators to measure the effectiveness of e-auction and e-bidding in reducing the risk of corruption will be explained and discussed.

7.2.1 Key Corruption Strategies and Corrupt Outcome Indicators

Fazekas et al. (2013b: 6) state that receiving corrupt rents is the main objective of institutionalised grand corruption in government procurement. Such corrupt rents, however, can be obtained under only two conditions. Firstly, a pre-selected bidder wins a contract by *limiting*

competition (Fazekas et al., 2013b: 6). Secondly, such a bidder gains additional profit from proposing a price that is higher than the market price which allows them to obtain corrupt rents (Fazekas et al., 2013b: 6).

Fazekas et al. (2013b: 6) divide government procurement process into three stages: submission; assessment; and delivery phases, and identify three key corruption strategies used at each stage to earn corrupt rents. Firstly, competition must be eliminated to create a chance for the pre-selected supplier to win the contract, and so the number of suppliers will be limited in the bid submission phase (Fazekas et al., 2013b: 11). *One bid submitted* or single bidder implies that there is no competition which creates an opportunity for procuring agencies to award the contracts at a high price for the purpose of corrupt rent extraction (Fazekas et al., 2013b: 11).

In the case that there is more than one bid submitted, those unwanted bids could be unfairly evaluated during the assessment phase and then eliminated (Fazekas et al., 2013b: 11). Only *one valid bid* implies that competition is restricted and this is a warning sign of a corruption risk.

Modification of contracts after the contracts were awarded also raises the risk of corruption (Fazekas et al., 2013b: 6). Even if the pre-selected bidder wins a contract in a competitive bidding process by proposing the lowest price and highest quality, after the contract has been signed, conditions in the contract might be modified in the delivery phase (Fazekas et al., 2013b: 6). This may enable the pre-selected bidder to earn corrupt rents by reducing the quality or increasing the price. However, this study is unable to objectively scrutinise the risk of corruption in this phase because there is no quantitative data for both e-auction and e-bidding on contract changing e.g., changes of price or quantity of the products or services after the contracts were signed.

To capture the overall outcome, Fazekas et al. (2013a, 2013b) suggest that grand corruption occurs in cases where contracts are recurrently awarded to bidding companies involved in corrupt networks. They state that the only way this can happen is if competition is eliminated during the procurement process. Consequently, there will be a few dominant firms which repeatedly win the contracts, and *dominant firms with high market share* is another signal of corruption risk in public procurement. Figure 7-1 below summarises the corruption strategies and quantitative outcome indicators of the risk of corruption in the procurement cycle.

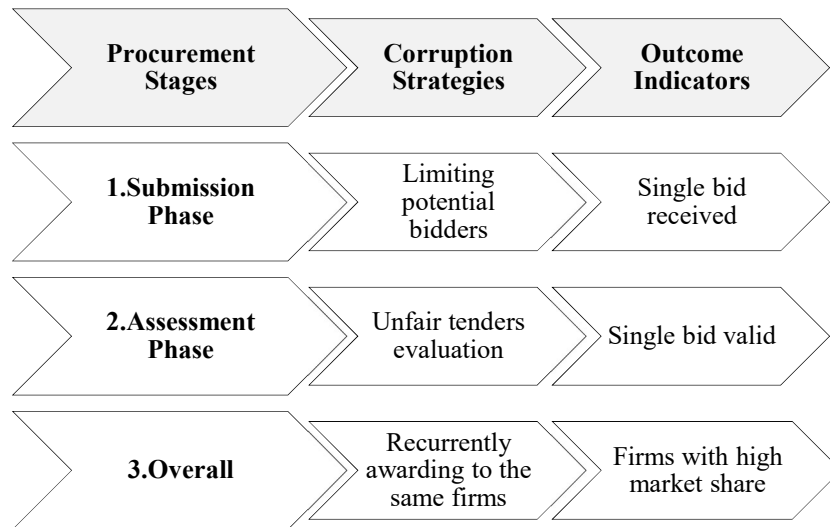


Figure 7-1: Key Corruption Strategies and Outcome Indicators of the Risk of Corruption in Public Procurement Process

(Sources: Fazekas et al., 2013b; Fazekas, 2016)

7.2.2 Risk of Corruption in Public Procurement and Rationales for the Use of the Quantitative Outcome Indicators

The quantitative analysis in this study aims not to measure ‘corruption’, but ‘the risk of corruption’ in e-auction and e-bidding. Firstly, it is realised that corruption cannot be measured directly as mentioned in Chapter 5. As stated in Chapter 1, the term corruption in this study is interpreted in a subjective manner and covers the context of the private wealth seeking behaviour of public officials (the bribee) who misuse their positions as an insider in procuring agencies to engaging in secret corrupt deals with private firms (the briber), creating procurement functions in an anti-competitive manner, and allowing particular private firms to win government procurement contracts. According to Van Schoor (2017: 70), the parties involved in corrupt activities include ‘the briber and the bribee’ who normally will cover up their corruption. Therefore, it is less likely to be able to provide a complete and precisely accurate check of the scale of corruption, such as how much bidders pay in bribes or how many awarded contracts are corrupt contracts.

This study adopts instead the three corrupt outcome indicators: single received bid, single valid bid, and winner’s market share to evaluate and quantify ‘the risk of corruption’ in e-auction and e-bidding. Corruption could occur at any or all phases or none, and none of the three outcome indicators are indicators of corruption per se. They are the indicators of ‘low competition’ corresponding to different phases in the procurement cycle: submission, evaluation, and the

award of contracts which could heighten the risk of corruption in public procurement. Moreover, an underlying assumption is that a key corruption strategy in public procurement is 'limiting competition'. This is relatively consistent with the interview findings in this study that collusion (as a result of less transparency and the chance of face-to-face interaction) were pointed out by the interviewees as the main causes of corruption.

Specifically, this study assesses the effectiveness of the e-bidding system by (i) comparing e-bidding in different periods and (ii) comparing e-bidding with e-auction. However, because of the different characteristics of price submission processes between e-auction and e-bidding, this study cannot replicate the works of Fazekas et al. (2013b). The two comparisons will use different outcome indicators in which a comparison of different periods of e-bidding will use all three indicators while a comparison between e-bidding and e-auction will use only winner's market share indicator.

For a comparison of e-bidding in different periods, all three indicators will be used. Single received bid and single valid bid in e-bidding are more likely to be prone to collusion. Firstly, the interviews suggest that when procuring non-standardised products/services or products/services that fewer firms in the market can supply, a small number of bids would be expected (Official 123). Nevertheless, the nature of both e-auction and e-bidding is not for procuring a pure monopoly of products/services with no close substitutes or for which a single firm possesses a monopoly in the market. Therefore, only one bid proposed or passed is likely to be prone to collusion.

Secondly, according to the interviews, a biased TOR is a well-known and perhaps widely used corrupt technique in which collusive agreements between corrupt officials and suppliers are made before the announcement of TOR, resulting in a small number of bidders or single received bid or single valid bid contracts (Official 121). Normally, the TOR will not be tailored to one company. For example, the required specifications in unbiased TOR should allow at least two brands to pass the criteria otherwise in a competitive bidding situation there would be a complaint by an appellant. Hence, single bid accepted is likely to be related to anti-competitive activities. In fact, even two or three bidders are likely to be prone to corruption. However, the use of single received bid and single valid bid indicators is considered as a conservative approach to measure the risk of corruption in this study (Fazakas et al., 2013b: 11-12).

For the winner's market share, the indicator captures the overall outcome of the procurement systems or it measures the effectiveness of the procurement systems at the end of the procurement process. A few dominant winning firms with high market share signals the risk of corruption. This would confirm the ineffectiveness of public procurement methods in preventing the risk of corruption i.e. increasing competition.

For a comparison between e-auction and e-bidding, single received bid and single valid bid indicators seem not to be valid indicators. According to the interviews, single received bid and single valid bid for e-auction and e-bidding contracts are acceptable in cases of urgency or necessity permitted by the procurement committee (Official 101). However, as e-reverse auction in e-auction required at least two bidders to compete with each other, only one bid received or accepted for e-auction contracts under normal circumstances was likely to be cancelled and relaunched while this did not apply to single received bid and single valid bid for e-bidding contracts for some departments (Official 103 and Official 106).

Therefore, the question of whether single received and single valid bids are more acceptable in e-bidding contracts suggests that e-auction might reduce the number of single received and single valid bid contracts dramatically. Thus, e-bidding would result in a much higher risk of corruption than e-auction. The two indicators would be invalid indicators to compare the two systems or the risk of corruption in the submission and evaluation phases cannot be measured when comparing e-auction and e-bidding. The comparison will therefore use only the winner's market share indicator.

However, it should be noted that there are some limitations pertaining to the three corrupt outcome indicators used in this study which possibly affect the quantitative analysis. Firstly, single received bid contracts indicate the risk of corruption as there is no competition (Fazekas et al., 2013c). However, in the case that there is more than one bid received (or more than one valid bid), this does not necessarily mean that there is no risk of corruption. Fazekas et al. (2013c: 18) mention the "three bidder procedure" in Hungary which is one of the corruption techniques and less likely to be captured by their quantitative corruption measurement method or the CRI. The three bidder procedure is one of the strict regulations of procurement in Hungary (Fazekas et al., 2013c: 18) in which at least three bidders are required in the bidding process. However, the technique to overcome such a procedure is to "just bring two friends with whom we can agree on the exact content of their bids" (Fazekas et al., 2013c: 18). This implies such a regulation does not support competition but leads to collusion among bidders instead.

According to the interviewees in this study, e-bidding allows single received and single valid bid contracts. However, single bid contracts, especially standardised products (which in fact should have a number of suppliers participating) are prone to corruption. Thus, the Hungarian three bidder procedure may apply to these contracts awarded through e-bidding system in order to avoid bidding cancellation or avoid investigation. Based on this information, there might be corruption in e-bidding contracts that have more than one bidder participating. However, based on the CRI which is used in this study, such e-bidding contracts are categorised as having no risk of corruption.

In addition, unfairly evaluated bids are the key corruption strategies in the assessment phase (Fazekas et al., 2013b: 11). In corrupt cases, only bids proposed by a pre-selected bidder will pass the evaluation criteria while the other bids will be eliminated, which is another technique for restricting competition (single valid bid). According to Fazekas et al. (2013b: 6), if the pre-selected bidder manages to win a contract at a given stage e.g., if only the pre-selected firm submits a bid, it is not necessary to take further corrupt actions in the next stages and would only increase the risk of being detected. If the three bidder restriction has been applied by collusion in the submission phase, this guarantees a win without additional corrupt methods e.g., there is no need to unfairly assess the bids submitted. Therefore, the decrease in single valid bid contracts in e-bidding over time might not necessarily mean that the risk of corruption in the evaluation stage is reduced.

Moreover, as mentioned in the previous chapter, it is less likely to confirm that those winning firms are independent. Suppose the winning firms with different names are owned by the same person or the same family. The lower winner's market share of e-auction than e-bidding and the decreasing of the winning firm's market share of e-bidding over the first year of its operation do not necessarily reflect the real intensity of competition in the bidding process.

7.3 Corruption Risk Measurement Methodology

The following parts of this section move on to describe regression models used in this study to test the hypothesis. The indicators of dependent variables (the risk of corruption outcomes) proposed by Fazekas et al. (2013b), indicators of independent variables based on the qualitative findings in this study, and the expected relationships between dependent and independent variables will be explained.

7.3.1 Hypothesis Testing

This section explains how the managerialist hypothesis will be tested with concrete measurements in accordance with the three corrupt outcome indicators. As previously stated, this study evaluates the effectiveness of the e-bidding system by (i) comparing e-bidding in different periods and (ii) comparing e-bidding with e-auction. There are three regressions for the former and two regressions for the latter.

Firstly, there are three regressions to evaluate the effectiveness of e-bidding in different periods. The interviews suggest that the e-bidding system was confronting a number of issues especially during the earlier period of its operation such as IT problems and the unfamiliarity of the users. Such problems were pointed out by some interviewees as part of the reason for a high number of single received bid and single valid bid contracts awarded by their departments. However, as the e-bidding system is gradually falling into place such IT issues have been solved (Official 129) and bidders are more active in learning from previous experience to adapt themselves to the conditions of the online systems after losing a contract (Official 107), it is more likely that competition in e-bidding should increase over time.

On the other hand, the qualitative findings also suggest that e-bidding may create new forms of corruption as corrupt people will try to overcome the system. In other words, corruption risk in e-bidding might increase or show up later in the use of e-bidding.

Based on the information above, corruption theories, and the Thai contexts, this study assumes that 'time' is the factor that affects the performance of e-bidding in reducing the risk of corruption. The first hypothesis is that e-bidding does not reduce the risk of corruption over time. To be specific, during the first year of its operation, it is expected that

- e-bidding does not reduce the number of *single received bid* contracts over time (Regression 1);
- e-bidding does not reduce the number of *single valid bid* contracts over time (Regression 2); and
- on average, *a winner's market share* under e-bidding is higher over time (Regression 3).

Secondly, there are another two regressions to test the managerialist hypothesis: e-bidding does not reduce the risk of corruption relative to e-auction. Compared to e-auction, the interviews suggest that e-bidding is more effective in supporting competition as it increases the number of

bidding participants and newcomers. Specifically, e-bidding facilitates the equality of bidders' opportunities by lowering the barriers to participation i.e. the costs and inconvenience associated with bidding, eliminating the opportunities for collusion found in the e-auction system, and also indirectly increasing the risk of being detected by publishing relevant information via the official website for citizens to monitor the bidding process.

In contrast, e-bidding faces some limitation which seems not to encourage competition. The ability of bidding firms in a digital business environment, the limited number of suppliers in a particular market, and the possibility of collusion during the bidding process and system hacking are pointed out as the weakness of the use of e-bidding. Thus, the system is less likely to reduce the risk of corruption.

As a result, this study assumes that procuring through e-bidding may have a higher risk of corruption than the e-auction system. Based on the CRI, it is expected that

- on average, a winner's market share under e-bidding is higher than e-auction (Regression 4) and
- even though e-bidding falls into place, on average, a winner's market share under e-bidding is still higher than e-auction (Regression 5).

Therefore, regression analysis includes the following five comparisons:

Regression 1-3: a comparison of e-bidding in different periods

In order to assess the effectiveness of e-bidding in reducing the risk of corruption over time, contracts that were signed in different three periods during the first year of the use of e-bidding as shown in Figure 7-2 below will be compared as follows:

- (i) **Period I:** 912 contracts that were signed between May and August 2015 accounted for 20.93 percent of total contracts awarded.
- (ii) **Period II:** 2,462 contracts that were signed between September 2015 and December 2015 accounted for 56.47 percent of total contracts awarded.
- (iii) **Period III:** 926 contracts that were signed between January and December 2016 accounted for 21.24 percent of total contracts awarded.

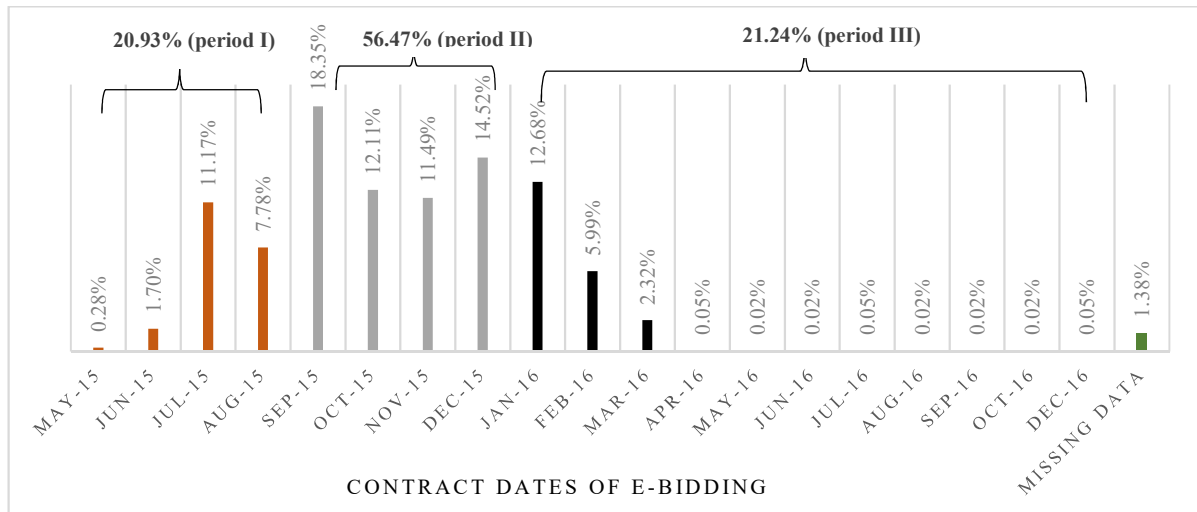


Figure 7-2: Percentage of E-bidding Contracts Signed in Each Month (Period I, II, and III)

Regression 4: a comparison of e-auction and e-bidding

In order to test the effectiveness of the e-bidding system in reducing the risk of corruption compared to the e-auction system, 4,360 e-auction contracts will be compared with 2,378 e-bidding contracts.

Regression 5: a comparison of e-auction and e-bidding in later periods

Additionally, this study compares e-bidding in period II and III as shown in Figure 7-2 above with e-auction to see if the later periods of the use of e-bidding reduces the risk of corruption relative to e-auction.

However, not all observations were included in the analysis because some data were missing. All descriptive statistics are summarised in Table A-2 and Table A-3 in the Appendix.

7.3.2 Indicators of Corrupt Outcomes

As mentioned previously, single bidder, single valid bid, and winner's share of the procuring agency's contracts are the three outcome indicators that capture a corruption risk in the submission phase, assessment phase, and overall, respectively. For the regression analysis in this study, the value and definition of three outcome indicators are summarised in Table 7-1 below.

| Phase | Indicator Name (Dependent Variables) | Indicator Value and Definition |
|------------|--|---|
| Submission | 1) Single bidder | 0 = more than one bid received 1 = one bid received |
| Assessment | 2) Single valid bid | 0 = more than one bid passed the evaluation criteria 1 = only one bid passed the evaluation criteria |
| Overall | 3) Winner's share of the procuring agency's contracts | one-year total contract value of a winner/ one-year total awarded contract value by a procuring agency |

Table 7-1: Definition of the Three Outcome Indicators
(Source: Fazekas et al., 2013b: 11)

7.3.3 Indicators of Corrupt Inputs

The inputs indicators used in this study are guided by the qualitative findings presented in the previous chapter. This study has three corrupt inputs (independent variables) for the five regression models including (i) time periods of e-bidding; (ii) procurement types and time periods of e-bidding; and (iii) procurement types. Table 7-2 below summarises the regressions and outcome and input indicators.

| Comparisons | Regressions | Procurement Stages | Corrupt Outcomes | Corrupt Inputs |
|--------------------------------|---|--------------------|-----------------------|---|
| E-bidding in different periods | R1: Does e-bidding reduce the number of single received bid contracts over time? | Submission | Single received bid | Time periods of e-bidding |
| | R2: Does e-bidding reduce the number of single valid bid contracts over time? | Assessment | Single valid bid | |
| | R3: On average, does e-bidding lower a winner's market share over time? | Overall | Winner's market share | |
| E-auction and e-bidding | R4: On average, is a winner's market share under e-bidding lower than e-auction? | Overall | Winner's market share | Procurement types |
| | R5: On average, is a winner's market share under e-bidding in the later periods lower than e-auction? | Overall | Winner's market share | Procurement types and time periods of e-bidding |

Table 7-2: Summary of the Five Regressions and Outcome and Input Indicators

Additionally, two control variables are (i) a set of dummy variables identifying 21 ministries and (ii) the log contract value which will be included in all regression models. Each regression is to find out if the corrupt input is significant and how such a variable affects the risk of corruption in each stage of the public procurement process. The value and definition of dependent, independent, and control variables are summarised in Table 7-3 and the expected relationships based on the qualitative findings are presented in Table 7-4 below.

| Variables | Indicators | Indicator Value and Definition |
|---|--|---|
| Dependent Variables (Corrupt risk outcomes) | 1.Single received bid | 0 = more than one bid received 1 = ONE bid received |
| | 2.Single valid bid | 0 = more than one bid passed the evaluation criteria 1 = only ONE bid passed the evaluation criteria |
| | 3.Winner's share within the procuring agency's contracts | one-year total contract value of winner/ one-year total awarded contract value by a procuring agency |
| Explanatory Variables (Corrupt risk inputs) | 1. Time periods of e-bidding | 1 = e-bidding in period I (reference category) 2 = e-bidding in period II 3 = e-bidding in period III |
| | 2.Procurement types | 0 = e-auction 1 = e-bidding |
| | 3. Procurement types and time periods of e-bidding | 0 = e-auction 1 = e-bidding in period II and period III |
| Control Variables | 1.Government ministries | 1 = Ministry of Finance (reference category) 2 = Ministry of Public Health 3 = Ministry of Foreign Affairs 4 = Ministry of Tourism and Sports 5 = Ministry of Natural Resources and Environment 6 = Ministry of Information and Communication Technology 7 = Ministry of Energy 8 = Ministry of Social Development and Human Security 9 = Ministry of Commerce 10 = Ministry of Justice 11 = Ministry of Labour 12 = Ministry of Culture 13 = Ministry of Science and Technology 14 = Ministry of Industry 15 = Office of the Prime Minister 16 =Ministry of Agriculture and Cooperatives 17 = Ministry of Defence 18 = Ministry of Transport 19 = Ministry of Interior 20 = Ministry of Education 21 = Independent Public Agencies |
| | 2.Log contract value | amount of awarded contract value |

Table 7-3: Summary of Variables in Regression Equations

| Regressions | Procurement Phase | Independent Variables | Dependent Variables and Expected Outcomes | | |
|---|-------------------|--|--|---|---|
| | | | 1) Single Received Bid | 2) Single Valid Bid | 3) Winner's Share within the Agency's Contracts |
| R1: Does e-bidding reduce the number of single received bid contracts over time? | Submission | Time periods 1 = period I (ref.) 2 = period II 3 = period III | It is more likely that e-bidding might not perform better over time in reducing the number of single received bid contracts as corrupt people will eventually find a new way to limit competition. | - | - |
| R2: Does e-bidding reduce the number of single valid bid contracts over time? | Assessment | Time periods 1 = period I (ref.) 2 = period II 3 = period III | - | It is expected that e-bidding might not perform better over time in reducing the number of single valid bid contracts because corrupt people will eventually find a way of bending the rule to unfairly win the contract. | - |
| R3: On average, does e-bidding lower a winner's market share over time? | Overall | Time periods 1 = period I (ref.) 2 = period II 3 = period III | - | - | It is likely that corrupt people will continually create new corrupt techniques to overcome the new system. Thus, e-bidding might not perform better over time in decreasing a winning firm's market share within the procuring agency's contracts. |
| R4: On average, is a winner's market share under e-bidding lower than e-auction? | Overall | Procurement type 0 = e-auction 1 = e-bidding | - | - | As it is expected that competition in e-bidding is not higher than e-auction, e-bidding is likely to create a chance for a firm to gain more market share than e-auction. |
| R5: On average, is a winner's market share under e-bidding in the later periods lower than e-auction? | Overall | Procurement type and time periods 0 = e-auction 1 = e-bidding (period II and period III) | - | - | Compared to e-auction, e-bidding in the later periods is still more likely to create a higher chance for a corrupt firm to gain more market share. |

Table 7-4: Summary of the Expected Outcomes of the Relationships between Corrupt Inputs and Corrupt Outcomes in This Study (Adapted from Fazekas et al., 2013b: 16)

7.4 Key Descriptive Statistics of the Risk of Corruption in Public Procurement Process

In the section that follows, I will first present descriptive statistics of the risk of corruption in e-bidding in the submission and assessment phases. This will be followed by a comparison of descriptive statistics of the risk of corruption in e-auction and e-bidding in the submission and assessment phases. The number of bids submitted, the number of single bids received, the number of qualified bids, and the number of single valid bid contracts of the two systems will be reviewed.

7.4.1 E-bidding in Different Three Periods: Number of Bids Submitted per Contract and Single Received Bid

According to Fazekas et al. (2013b), only one firm bidding for a contract is more likely to signify the probability of corruption as there is no competition which allows the pre-selected bidder to win a contract more easily. Table 7-5 below shows descriptive statistics of the number of bids submitted per e-bidding contract in period I, II, and III. The statistics suggest that competition in the submission phase is increasing over time.

| Duration | Total Number of Contracts Awarded | Number of Bids Submitted per Contract | | | Number of Single Received Bid Contracts |
|------------|-----------------------------------|---------------------------------------|-----|--------|---|
| | | Min | Max | Median | |
| Period I | 912 | 1 | 14 | 2 | 376 (41.23%) |
| Period II | 2,462 | 1 | 28 | 2 | 737 (29.94%) |
| Period III | 926 | 1 | 28 | 2 | 202 (21.81%) |

Table 7-5: Descriptive Statistics of the Number of Bids Submitted per E-bidding Contract in Period I, II, and III

In period I, the number of bidders per contract ranges between 1 and 14 while the number of bidders in period II and period III have the same range at 1-28. The median numbers of bidding participants per contract in the three periods are two. The distribution of the number of bids submitted per e-bidding contract in the three periods are asymmetrical as shown in Figure 7-3, Figure 7-4, and Figure 7-5 below.

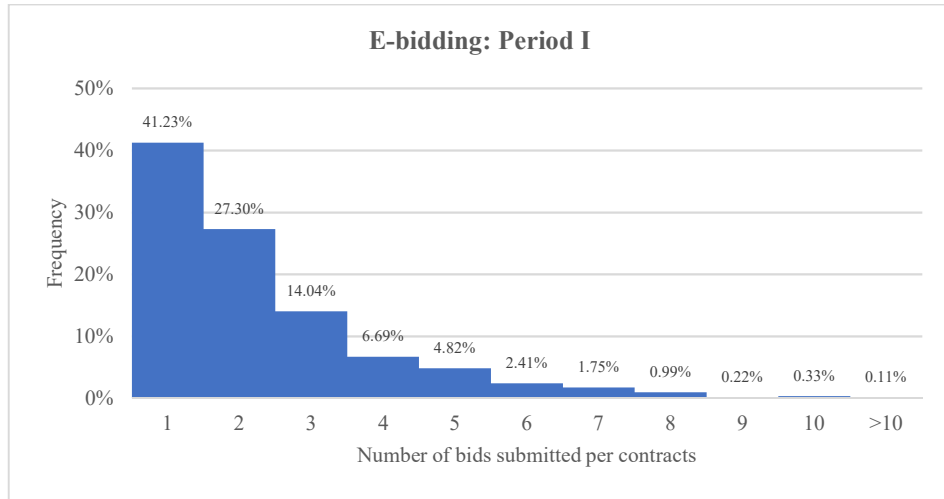


Figure 7-3: Distribution of the Number of Bidders per E-bidding Contract in Period I

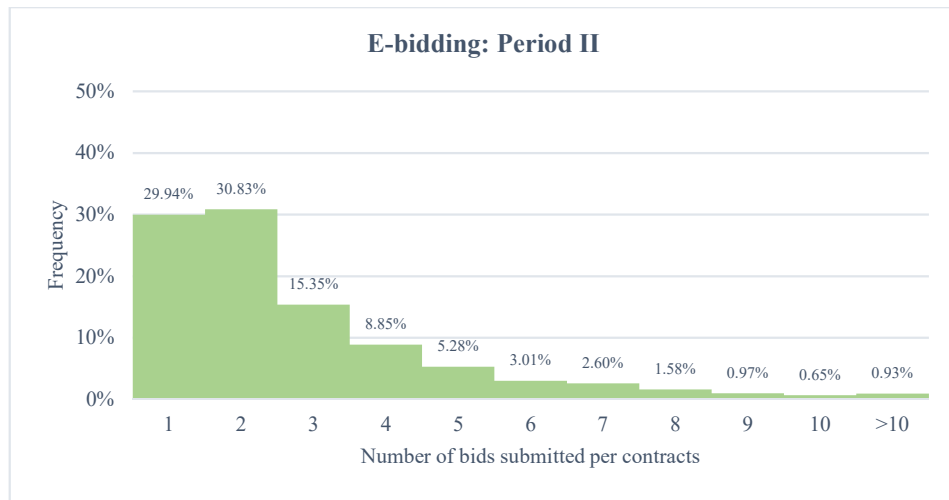


Figure 7-4: Distribution of the Number of Bidders per E-bidding Contract in Period II

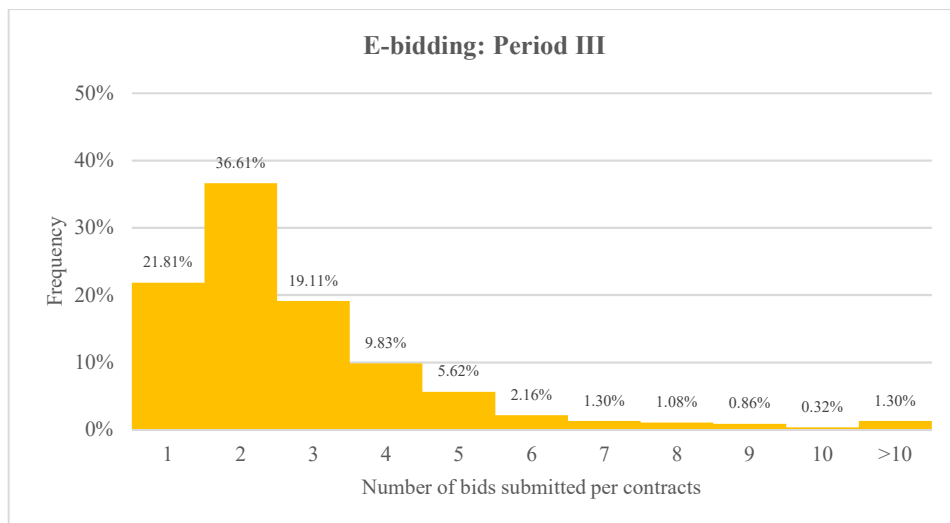


Figure 7-5: Distribution of the Number of Bidders per E-bidding Contract in Period III

There has been a steady decline in the percentage of the number of single received bids of e-bidding contracts. During period I, the number of single received bid contracts accounted for more than 40 percent of total contracts awarded. For period II and period III, the percentage of the number of single bid contracts has been decreased to about 30 and 22 percent, respectively. Importantly, single received bid contracts in period III are approximately 50 percent less than period I. Thus, the statistics suggest that e-bidding is more likely to perform better over time (during the first year) in the submission phase and period III has the lowest risk of corruption.

7.4.2 E-bidding in Different Three Periods: Number of Bids Passed per Contract and Single Valid Bid

According to Fazekas et al. (2013b: 11), unfair tender assessment is the key corruption strategy in the evaluation phase. In the context of the risk of corruption, there will be only one bid passing the evaluation criteria. When comparing the three periods of e-bidding, the statistics shown in Table 7-6 below imply that competition in the evaluation phase is slightly increasing over time.

| Duration | Total Number of Contracts Awarded | Number of Valid Bids per Contract | | | Number of Single Valid Bid Contracts (no. of bid received ≥ 2) |
|------------|-----------------------------------|-----------------------------------|-----|--------|--|
| | | Min | Max | Median | |
| Period I | 912 | 1 | 12 | 2 | 123 (13.49%) |
| Period II | 2,462 | 1 | 26 | 2 | 297 (12.06%) |
| Period III | 926 | 1 | 25 | 2 | 82 (8.86%) |

Table 7-6: Descriptive Statistics of the Number of Valid Bids per E-bidding Contract in Period I, II, and III

In period I, the number of bid passed per contract ranges between 1 and 12 while the numbers of bidders in period II and III range from 1-26 and 1-25, respectively. The median number of bids passed per contract in the three periods is two and the distribution of the number of valid bids per e-bidding contract in the three periods are shown in Figure 7-6, Figure 7-7, and Figure 7-8 below.

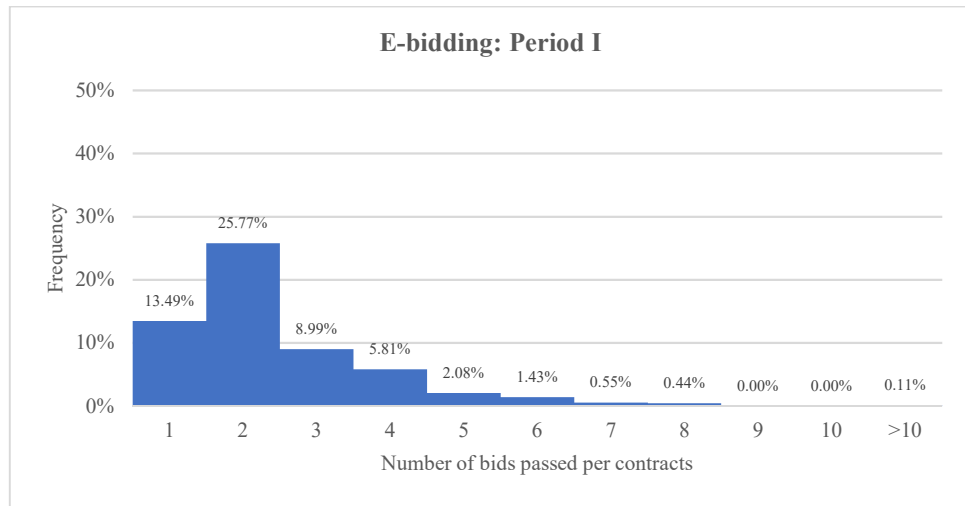


Figure 7-6: Distribution of the Number of Valid Bids per E-bidding Contract in Period I

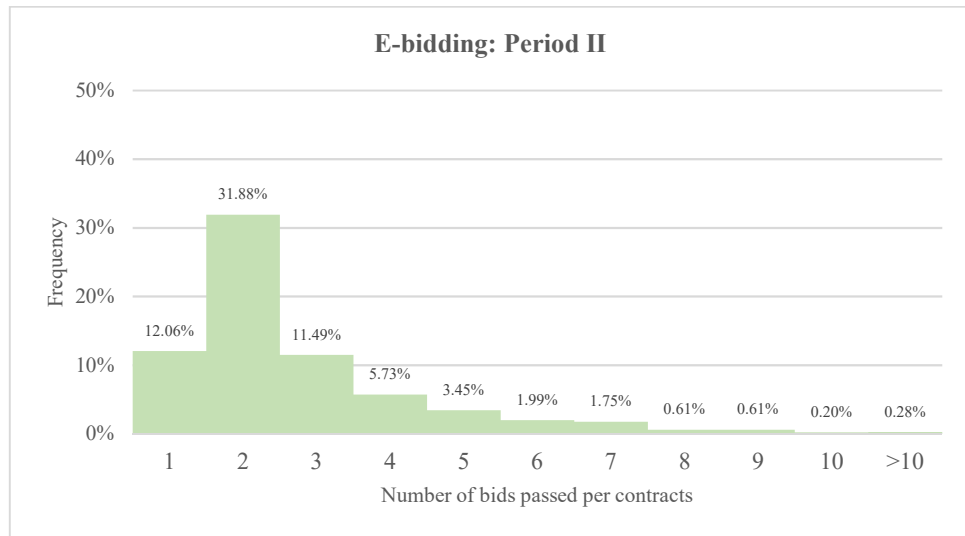


Figure 7-7: Distribution of the Number of Valid Bids per E-bidding Contract in Period II

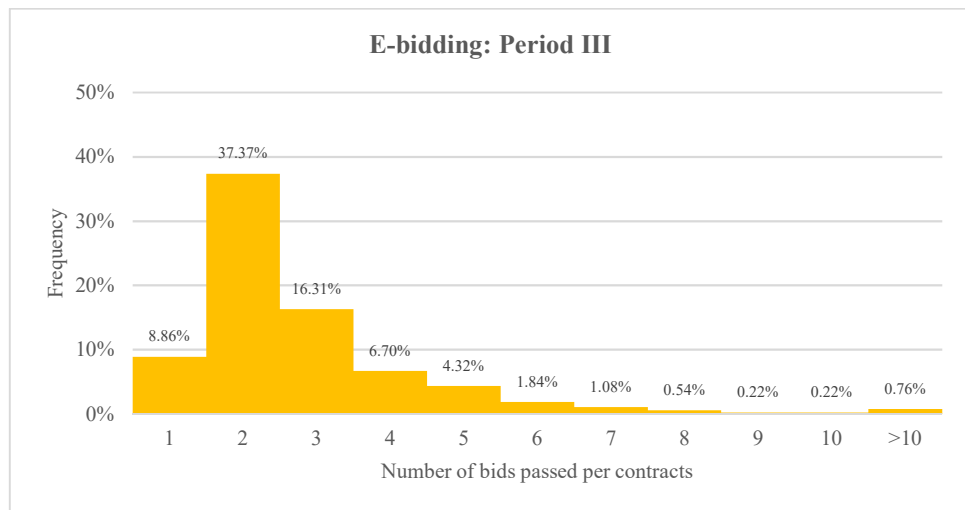


Figure 7-8: Distribution of the Number of Valid Bids per E-bidding Contract in Period III

There has been a decrease in the number of single valid bid contracts over the first year of the use of e-bidding. The percentage of the number of single valid bid contracts of e-bidding gradually decreases from 13.49 in period I to 12.06 in period II and continuously decreases to 8.86 in period III. Thus, the statistics suggest that e-bidding is more likely to perform better over time in the assessment phase and period III has the lowest risk of corruption.

7.4.3 E-auction and E-bidding: Number of Bids Submitted per Contract and Single Received Bid

The statistics shown in Table 7-5 above indicate that e-bidding in the first year has resulted in the greater competition because the percentage of single received bid contracts is decreasing over time i.e. 41.23 percent in Period I, 29.94 percent in Period II, and 21.81 percent in Period III. However, when comparing the e-bidding with e-auction, the statistics shown in Table 7-7 below shows that the number of single received bids of e-bidding contracts is quite high (30.16 percent). The statistics suggest that competition in e-auction is higher than in e-bidding or e-bidding has a higher risk of corruption than e-auction.

| Procurement Types | Total Number of Contracts Awarded | Number of Bids Submitted per Contract | | | Number of Single Received Bid Contracts |
|-------------------|-----------------------------------|---------------------------------------|-----|--------|---|
| | | Min | Max | Median | |
| E-auction | 2,378 | 1 | 56 | 3 | 203 (8.54%) |
| E-bidding | 4,360 | 1 | 28 | 2 | 1,315 (30.16%) |

Table 7-7: Descriptive Statistics of the Number of Bids Submitted per E-auction and E-bidding Contract

For e-auction, among the 2,378 contracts awarded, the number of bidders per contract ranges between 1 and 56 and the median number of bidding participants per contract is three. For e-bidding, the number of bidders in the 4,360 contracts awarded ranges from 1 to 28 and the median number of bidders per contract is two. The distribution of the number of bids submitted per e-auction and e-bidding contracts are asymmetrical (right-skewed) as shown in Figure 7-9 and Figure 7-10 below.

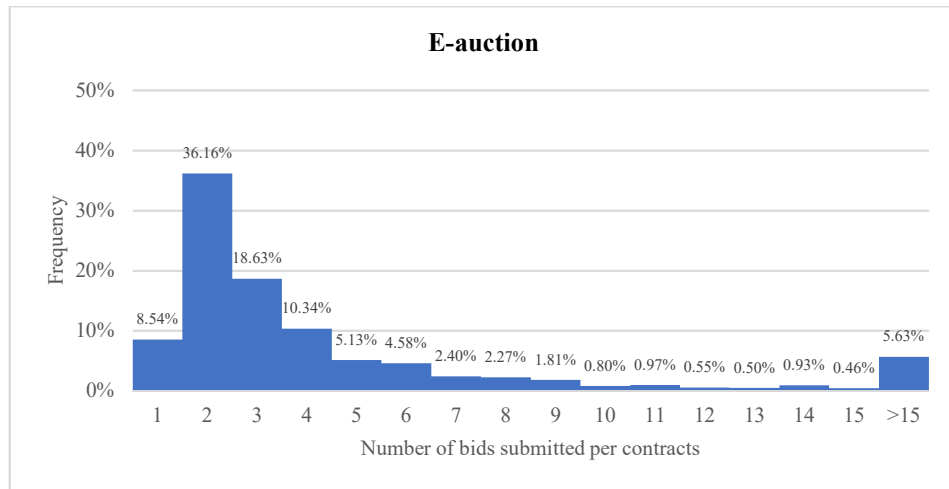


Figure 7-9: Distribution of the Number of Bidders per E-auction Contract

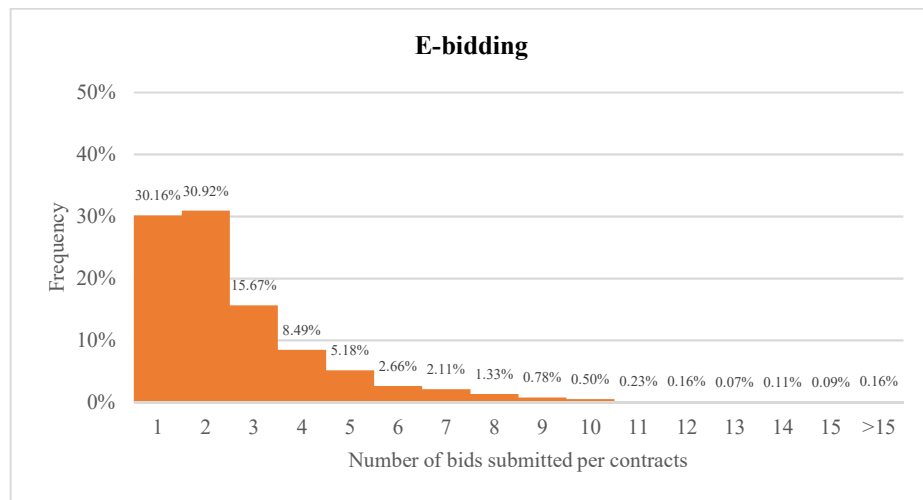


Figure 7-10: Distribution of the Number of Bidders per E-bidding Contract

7.4.4 E-auction and E-bidding: Number of Bids Passed per Contract and Single Valid Bid

The statistics shown in Table 7-6 above indicate that e-bidding in the first year has performed better over time in increasing competition as the percentage of single valid bid contracts is decreasing over time. However, the descriptive statistics of the number of bids that passed the evaluation criteria in e-auction and e-bidding shown in Table 7-8 below show that the percentage of single valid bids of e-bidding contracts (11.51 percent) is higher than e-auction (3.11 percent). The statistics suggest that competition in e-auction is higher than in e-bidding or e-bidding has a higher risk of corruption than e-auction.

| Procurement Types | Total Number of Contracts Awarded | Number of Valid Bids per Contract | | | Number of Single Valid Bid Contracts (no. of bids received ≥ 2) |
|-------------------|-----------------------------------|-----------------------------------|-----|--------|---|
| | | Min | Max | Median | |
| E-auction | 2,378 | 1 | 55 | 3 | 74 (3.11%) |
| E-bidding | 4,360 | 1 | 26 | 2 | 502 (11.51%) |

Table 7-8: Descriptive Statistics of the Number of Valid Bids per E-auction and E-bidding Contract

For e-auctions, the number of valid bids per contract ranges between 1 and 55 and the median number of valid bids per contract is three. For e-bidding, the number of valid bids ranges from 1 to 26 while the median number of valid bids per contract is two. Like the number of bids submitted, the distributions of the number of bids passed per e-auction and e-bidding contracts are asymmetrical as illustrated in Figure 7-11 and Figure 7-12 below.

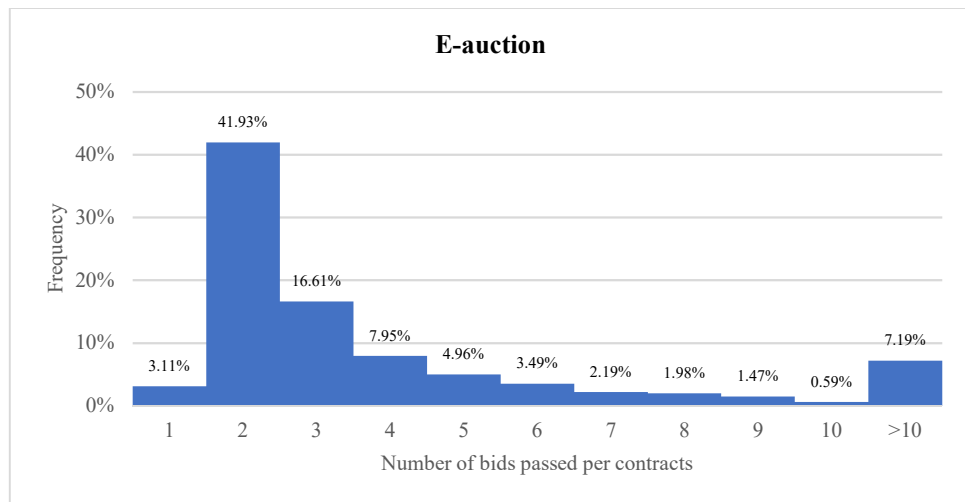


Figure 7-11: Distribution of the Number of Valid Bids per E-auction Contract

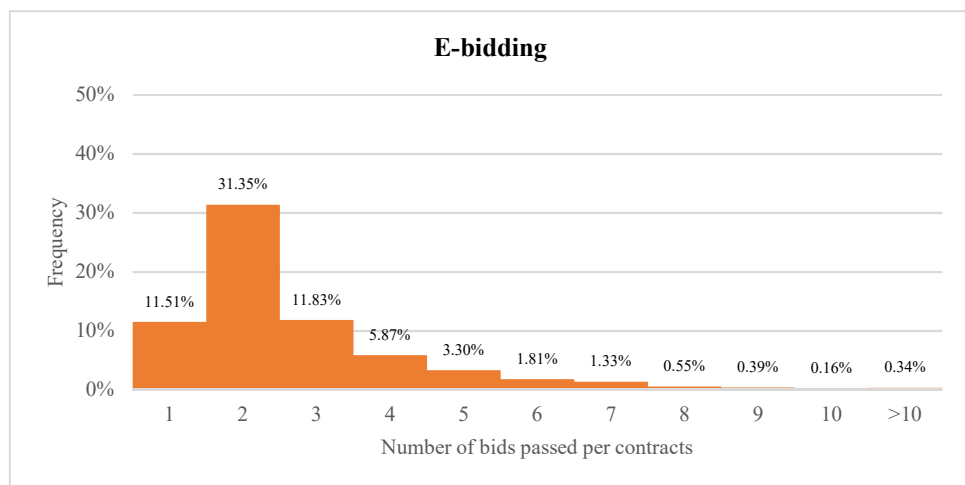


Figure 7-12: Distribution of the Number of Valid Bids per E-bidding Contract

The statistics of single received bid and single valid bid of e-auction and e-bidding above may suggest that the risk of corruption in the submission and evaluation stages of e-bidding is higher than e-auction, but this may reflect the effect of the different characteristics of price submission processes between e-auction and e-bidding. As e-reverse auction requires at least two bidders, more than 35 percent (860 contracts) of e-auction contracts contain two bids submitted per contract while less than 10 percent (203 contracts) of contracts awarded are one bid submitted (Figure 7-9). On the other hand, more than 30 percent (1,314 contracts) of e-bidding contract awarded are single received bids (Figure 7-10).

In addition, most of the contracts awarded through e-auction (41.93 percent) contain two qualified bids per contract while only 3.11 percent of total e-auction contracts awarded are single valid bids (Figure 7-11). For e-bidding in which single valid bid contracts are more allowed, more than 10 percent of total contracts awarded are single valid bids (Figure 7-12). Therefore, the concept of single received bid and single valid bid proposed by Fazekas et al. (2013b) may not fit the comparison of the two procurement systems as was discussed earlier.

7.5 Regression Analysis

This section presents the results of regression analysis. Firstly, e-bidding contracts signed in period II and period III will be compared with the contracts signed in period I. The first three regressions focus on how e-bidding performs over time in reducing the risk of corruption at submission stage (Regression 1), assessment stage (Regression 2), and overall (Regression 3). After that, e-bidding contracts will be compared with e-auction contracts (Regression 4). This will be followed by a comparison between e-auction and e-bidding in the later periods (Regression 5). The focus of the last two regressions is on how e-bidding affects a winner's market share compared to e-auction.

7.5.1 Risk of Corruption in E-bidding in the Submission Phase: Single Received Bid

The first regression tests whether e-bidding reduces the number of single received bid contracts over time. In order to assess an effectiveness of e-bidding in reducing the risk of corruption, 2,462 e-bidding contracts that were signed in period II and 926 contracts that were signed in period III will be compared with 912 contracts that were signed in period I (Figure 7-2).

The independent variable is the time period of e-bidding (1 = a reference category: e-bidding contracts signed in period I; 2 = e-bidding contracts signed in period II; and 3 = e-bidding contracts signed in period III). The control variables are a set of dummy variables identifying 21 ministries and the log contract value. The dependent variable, single bid received/more than one bid received, is a binary variable. Table 7-9 below shows the results of the regression model for single received bids.

| Single Received Bid | Odds Ratio | Std.err | z | P> z | [95% Conf. Interval] | |
|--|------------|---------|-------|-------|----------------------|--------|
| Period II | 0.69 | 0.0602 | -4.52 | 0.000 | 0.5816 | 0.8187 |
| Period III | 0.5483 | 0.0666 | -4.95 | 0.000 | 0.4322 | 0.6955 |
| Control variables: Ministry (reference category: Ministry of Finance) and log contract value | | | | | | |
| Number of observations = 4,299 | | | | | | |
| LR chi2(23) = 397.26 | | | | | | |
| Prob > chi2 = 0.0000 | | | | | | |
| Pseudo R2 = 0.0751 | | | | | | |

Table 7-9: Output of Regression II: Risk of Corruption in the Submission Phase (Time Periods of E-bidding)

As some data of e-bidding are missing, 4,299 (out of 4,360) observations were included in the regression. The regression outputs indicate that the odds of single received bids for e-bidding contracts that were signed in period II is 0.69 or 31 percent less than the contracts that were signed in period I and the odds of single received bid for e-bidding contracts that were signed in period III is about 45 percent less than the contracts that were signed in period I. The results are in accordance with the descriptive statistics revealed earlier in Table 7-5 and show a negative relationship between the time periods of e-bidding and the risk of corruption in the submission stage. E-bidding performs better over time in reducing the number of single received bid contracts.

7.5.2 Risk of Corruption in E-bidding in the Assessment Phase: Single Valid Bid

The second regression assesses the effectiveness of the e-bidding system in reducing the risk of corruption in the evaluation stage over time. As was the case with single received bids, contracts that were signed in period II and period III will be compared with those contracts that were signed during period I.

The independent variable is a set of dummy variables identifying the three different time periods of e-bidding (1 = a reference category: e-bidding contracts signed in period I; 2 = e-bidding contracts signed in period II; and 3 = e-bidding contracts signed in period III). The control

variables are a set of dummy variables identifying 21 ministries and the log contract value. The dependent variable, single bid valid/more than one valid bid, is a binary variable. Table 7-10 below shows the results of the regression model for single valid bid.

| Single Valid Bid* | Odds Ratio | Std.err. | z | P> z | [95% Conf. Interval] | |
|--|------------|----------|-------|-------|----------------------|--------|
| Period II | 0.7918 | 0.101 | -1.83 | 0.067 | 0.6167 | 1.0167 |
| Period III | 0.6208 | 0.1105 | -2.68 | 0.007 | 0.4379 | 0.8801 |
| Control variables: Ministry (reference category: Ministry of Finance) and log contract value | | | | | | |
| *Number of observations = 2,984 (only e-bidding contracts with at least two bids proposed) | | | | | | |
| LR chi2(23) = 86.00 | | | | | | |
| Prob > chi2 = 0.0000 | | | | | | |
| Pseudo R2 = 0.0318 | | | | | | |

Table 7-10: Output of Regression III: Risk of Corruption in Assessment Phase (Time Periods of E-bidding)

There are 2,984 observations included in this regression. The observations are e-bidding contracts in which at least two bidders participated and only one proposal passed the evaluation criteria. The regression outputs indicate that the odds of single valid bids for e-bidding contracts that were signed in period II is 0.79 or about 21 percent less than the contracts that were signed in period I and the odds of single valid bid for e-bidding contracts that were signed in period III is about 38 percent less than the contracts that were signed in period I.

The results are in alignment with the descriptive statistics presented earlier in Table 7-6 and indicate a negative relationship between the time periods of the use of e-bidding and the risk of corruption in the evaluation phase of e-bidding. This implies that e-bidding is more likely to reduce the number of single valid bid contracts over time.

7.5.3 Overall Risk of Corruption in E-bidding: A Winner's Market Share

The third regression assesses the overall effectiveness of e-bidding in reducing the risk of corruption over time. Contracts that were signed in period II and period III will be compared with those contracts that were signed during period I, the reference category.

The independent variable is a set of dummy variables identifying the three different time periods of e-bidding operation (1 = e-bidding contracts signed in period I; 2 = e-bidding contracts signed in period II; and 3 = e-bidding contracts signed in period III). The control variables are a set of dummy variables identifying 21 ministries and the log contract value. The dependent variable is

the winner's share within the procuring agency's contracts. Table 7-11 below presents the results of the regression.

| Winner's Share within the Procuring Agency's Contracts | Coef. | Robust Std.Err. | t | P> t | [95% Conf. Interval] | |
|--|---------|-----------------|-------|-------|----------------------|---------|
| Period II | -0.0114 | 0.0036 | -3.14 | 0.002 | -0.0185 | -0.0043 |
| Period III | -0.019 | 0.0054 | -3.48 | 0.000 | -0.0296 | -0.0083 |
| Control variables: Ministry (reference category: Ministry of Finance) and log contract value | | | | | | |
| Number of observations = 4,602 (number of winners used in regression) | | | | | | |
| F (23, 4578) = 26.66 | | | | | | |
| Prob > F = 0.0000 | | | | | | |
| R-squared = 0.2370 | | | | | | |
| Root MSE = .09481 | | | | | | |

Table 7-11: Output of Regression IV: Risk of Corruption as Overall Outcome (Time Periods of E-bidding)

The regression includes 4,602 observations (the data for 63 e-bidding is missing) in which period I, period II, and period III have 968, 2,631, and 1,003 winners, respectively. The results indicate a negative relationship between the time periods of e-bidding and the overall risk of corruption in public procurement which suggests that a winner's market share of e-bidding in period II is a 1.14 percentage point lower than e-bidding in period I on average. In addition, a winner's market share of e-bidding in period III is a 1.9 percentage point lower than e-bidding in period I. As the winner's market share gradually decreases over time, it implies that e-bidding performs better over time in reducing the risk of corruption.

7.5.4 Overall Risk of Corruption in E-auction and E-bidding: A Winner's Market Share

The fourth regression tests whether on average, a winner's market share under e-bidding is higher than e-auction. The independent variable is the type of procurement (0 = e-auction and 1 = e-bidding) and the response variable is the winner's share within the procuring agency's contracts. The control variables are a set of dummy variables identifying 21 ministries and the log contract value. The results of the regression are shown in Table 7-12 below.

| Winner's Share within the Procuring Agency's Contracts | Coef. | Robust Std.Err. | t | P> t | [95% Conf. Interval] | |
|--|--------|-----------------|------|-------|----------------------|--------|
| E-bidding | 0.0078 | 0.0035 | 2.26 | 0.024 | 0.001 | 0.0146 |
| Control variables: Ministry (reference category: Ministry of Finance) and log contract value | | | | | | |
| Number of observations = 7,231 (number of winners used in regression) | | | | | | |
| F (22, 7208) = 50.22 | | | | | | |
| Prob > F = 0.0000 | | | | | | |
| R-squared = 0.2192 | | | | | | |
| Root MSE = 0.1072 | | | | | | |

Table 7-12: Output of Regression I: Overall Risk of Corruption in Public Procurement
(A Winner's Market Share in E-auction and E-bidding)

With 7,231 observations, 2,566 winning firms of 2,378 e-auction contracts and 4,665 winners of 4,360 e-bidding contracts (one data of e-bidding is missing), the regression outputs above indicate that procurement types statistically and significantly predicted winner's share within the procuring agency's contracts ($p = 0.024$). The results indicate that e-bidding has the expected outcome as shown in Table 7-4 in which a winner's market share in e-bidding is a 0.78 percentage point higher than e-auction on average. The effect in size is quite small, but the significant effect implies that e-bidding creates more chance for a firm to gain more market share than e-auctions which is consistent with the managerialist hypothesis.

7.5.5 Overall Risk of Corruption in E-auction and E-bidding in Later Periods: A Winner's Market Share

As the descriptive statistics show that e-bidding seems to perform better over time in reducing the risk of corruption, the last regression assesses whether or not e-bidding in later periods (period II and period III) performs better than e-auction. The regression is to verify the assumption that even though e-bidding falls into place, on average, a winner's market share under e-bidding is still higher than e-auction.

The independent variable is the procurement type and time periods of e-bidding (0 = e-auction and 1 = e-bidding in period II and period III). The control variables are a set of dummy variables identifying 21 ministries and the log contract value. The response variable is a winner's share within the procuring agency's contracts. The outputs are summarised in Table 7-13 below.

| Winner's Share within the Procuring Agency's Contracts | Coef. | Robust Std.Err. | t | P> t | [95% Conf. Interval] |
|--|--------|-----------------|------|-------|----------------------|
| E-bidding (period II and III) | 0.0073 | 0.0035 | 2.07 | 0.038 | 0.0004 0.0142 |
| Control variables: Ministry (reference category: Ministry of Finance) and log contract value | | | | | |
| Number of observations = 6,200 (number of winners used in regression) | | | | | |
| F (22, 6177) = 45.03 | | | | | |
| Prob > F = 0.0000 | | | | | |
| R-squared = 0.2176 | | | | | |
| Root MSE = .1101 | | | | | |

Table 7-13: Output of Regression II: Overall Risk of Corruption in Public Procurement (A Winner's Market Share in E-auction and E-bidding in Later Periods)

The regression includes 6,200 observations in which e-auction and e-bidding in period II and period III have 2,566 and 3,634 winners, respectively. The regression outputs indicate that the procurement type and time periods of e-bidding statistically and significantly predicted the winner's market share within the procuring agency's contracts ($p = 0.038$). The result indicates that a winner's market share of e-bidding in period II and period III is a 0.73 percentage point higher than e-auction. The effect size is small, but the significant effect indicates that even the number of single received and single valid bid contracts of e-bidding decrease over time, a winner's market share in the later periods is still higher than e-auctions on average. The results support the managerialist hypothesis.

7.6 Summary

Guided by collective action theory and the qualitative findings in the previous chapter, this study proposes a managerialist hypothesis that the use of e-bidding (the anti-corruption intervention inspired by principal-agent approach) to replace e-auction, is unlikely to reduce the risk of corruption. Overall, the findings support the hypothesis. The quantitative analysis which is summarised in Table 7-14 below suggests that even though e-bidding in the first year of its operation reduces the risk of corruption over time (Regression 1-3), the system reduces the risks of corruption less than e-auction (Regression 4-5). Moreover, the qualitative findings suggest that the use of ICTs in public procurement process, which is claimed to improve process transparency, however, cannot prevent corrupt practices from occurring. Collusion is possible regardless of procurement methods.

Firstly, the regression results indicate that there is a negative relationship between the time periods of the use of e-bidding and the risk of corruption. On average e-bidding during its first year performs better over time in reducing the risk of corruption across the three procurement

phases. Specifically, e-bidding reduces the number of single received bid contracts in the submission phase (Regression 1), reduces the number of single received bid contracts in the assessment phase (Regression 2), and decreases a winner's market share on average (Regression 3).

The improvement of e-bidding overtime in the first year of its operation seems to support the perception of some interviewees. Based on the interviews, there were several technical problems and the users' unfamiliarity with online systems during the very first period of the use of e-bidding. Consequently, this period creates more chance of limiting the number of bidders, more chance of awarding single valid bid contracts, and more chance for a pre-selected firm to gain more market share than the later periods.

However, the regression results indicate that the overall risk of corruption in e-bidding during the first year of its operation is higher than e-auction on average. Compared to e-auction, a firm bidding for e-bidding contracts gains higher market share on average (Regression 4). The quantitative outcomes also show that the overall risk of corruption of e-bidding in later periods is still higher than e-auction on average (Regression 5). The results support the managerialist hypothesis showing that on average firm's market shares of e-bidding in the first year and in the later periods are higher than e-auctions.

| Regressions | Procurement Phase | Independent Variables | Dependent Variables and Quantitative Findings | | |
|---|-------------------|--|---|---|---|
| | | | 1) Single ReceivedBid | 2) Single Valid Bid | 3) Winner's Share within the Procuring Agency's Contracts |
| R1: Does e-bidding reduce the number of single received bid contracts over time? | Submission | Time periods 1 = period I (ref.) 2 = period II 3 = period III | The results indicate a negative relationship. E-bidding performs better over time in reducing the number of single received bid contracts/lowering the odds of single received bid contracts. | - | - |
| R2: Does e-bidding reduce the number of single valid bid contracts over time? | Assessment | Time periods 1 = period I (ref.) 2 = period II 3 = period III | - | The results are not in line with the prediction and show a negative relationship. E-bidding performs better over time in reducing the number of single valid bid contracts/lowering the odds of single valid bid contracts. | - |
| R3: On average, does e-bidding lower a winner's market share over time? | Overall | Time periods 1 = period I (ref.) 2 = period II 3 = period III | - | - | The results are not consistent with the prediction and indicate a negative relationship. E-bidding performs better over time in decreasing a winning firm's market share within the procuring agency's contracts. |
| R4: On average, is a winner's market share under e-bidding lower than e-auction? | Overall | Procurement type 0 = e-auction 1 = e-bidding | - | - | The results support the hypothesis. Compared to e-auction, a firm bidding for e-bidding contracts gains higher market share on average. |
| R5: On average, is a winner's market share under e-bidding in the later periods lower than e-auction? | Overall | Procurement type and time periods 0 = e-auction 1 = e-bidding (period II and period III) | - | - | The findings are consistent with the hypothesis. On average a firm's market share in the later periods of e-bidding is still higher than e-auctions. |

Table 7-14: Summary of the Quantitative Findings

Based on the qualitative and quantitative findings, the answer to the first research question is that *e-bidding is less likely to reduce the risk of corruption in public procurement*. The qualitative findings suggest that e-bidding is not a silver bullet to the problem of corruption as the system can reduce the risk of corruption in public procurement only to a limited extent which are consistent with collective action theory and the quantitative findings.

The quantitative results suggest that e-bidding in the first year of its operation has not increased competition as much as (the government) expected. With the incremental improvements over time in its first year, however, competition in the later periods of e-bidding (period II and period III) is still lower than e-auction. This implies that the risk of corruption in e-bidding is higher than e-auctions or that e-bidding in the first year is conducted in a less competitive bidding environment than e-auction. The use of online procurement system seems not to perform better in controlling corruption risk compared to the use of a mix of offline and online procurement system.

According to the interviewees, regardless of bidding methods, competition in terms of the participation of newcomers can still be limited and collusion is still impossible to prevent. More importantly, public procurement reforms could foster new types of corruption by taking advantage of the gap in regulations or laws. For example, e-bidding that allows more single received and single valid bid contracts may facilitate corrupt practices or corrupt techniques to overcome the new procurement systems may be found and used in the future.

Based on the findings, it is possible to assume that corrupt activities occur in e-bidding or other e-procurement systems one way or another. Some interviewees in this study expressed their opinions based on their experience that launching a new procedure indirectly makes corrupt people become “a tiger that has grown wings” as they will always know how to overcome the improved systems (Official 120 and Official 121). This supports the limitations of the managerialist anti-corruption approaches mentioned in Chapter 2. According to Larmour and Wolanin (2013: xix), it is likely that preventive strategies may unintentionally increases the skills of criminals in finding new methods that are not easy to detect. Corruption will be found in a new place and it might be difficult for governments to find a solution unless they recognise the problems or loopholes.

Even though this study shows that online procurement systems cannot entirely solve the problem of collusion and eliminate corruption in public procurement, it does not mean that the online

systems are ineffective in the fight against corruption. The interviewees indicate that the functions of e-bidding are designed to overcome loopholes in e-auction and suggest that the online procurement systems are more likely to help increase competition (reduce the risk of corruption) when procuring *standardised products/services* in which there are a number of potential bidders available in the markets rather than procuring an exclusive product/service where only a limited number of suppliers can apply.

As mentioned by one respondent in this study regarding the online services that all information of e-bidding is published online, such information can be used by anyone e.g., a citizen or civil society organisations (CSOs) to detect any suspicious bidding contracts (Official 107). In fact, such online services can be considered as an anti-corruption tool based on the interventionist approach. Interventionist strategies involve waiting for the crime to occur and the criminal will then be charged (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv). Therefore, the availability of the online monitoring systems might prevent or detect corrupt officials or bidders from repeating illegal practices as their corrupt practices are discovered.

Even though such online functions are one of the anti-corruption tools that are unlikely to draw a majority of normal citizens' attention in monitoring corruption in public procurement (Official 107), its availability at least can support citizens' watchdog roles. Honest officials or (losing) bidders who are insiders in public procurement might be the ones who report the problems to the officials.

Moreover, as the Thai government provides additional online channels to facilitate corruption reporting, the next chapter will investigate the effectiveness of the use of ICTs in official whistleblowing platforms in Thailand. This is to find out that whether or not e-whistleblowing, the second focused anti-corruption intervention in this study, works well in the fight against corruption in a particularistic society.

Chapter 8 E-whistleblowing: Analysis

8.1 Introduction

Returning briefly to the findings from the previous chapter, e-procurement systems are not a silver bullet against corruption in public procurement. Not only e-bidding (or e-procurement systems in general) has limitations in increasing competition, but most misconduct is also well-planned as corrupt officials and bidders make an effort to find loopholes in the procurement systems that enable them to unfairly win contracts and conceal evidence of their corruption.

In Thailand, there is an increasing trend towards improving and using e-whistleblowing platforms such as an online form on mobile websites, mobile applications, and social networking sites. This chapter, therefore, presents an analysis of electronic whistleblowing (e-whistleblowing), an anti-corruption mechanism based on intervenionist approaches that has the capacity to detect and uncover corrupt practices. The study aims at investigating the effectiveness of online reporting platforms in a highly corrupt society. In particular, the analysis is to answer the second research question that whether e-whistleblowing platforms are effective anti-corruption tools for detecting corruption in public procurement, compared to the traditional reporting platforms. In order to address this research question, two sub-research questions have been developed: (i) Do ICTs affect individuals' reporting behaviour? and (ii) To what extent does the corruption reported via e-whistleblowing platforms facilitate the authorities' investigations?

The chapter is divided into three main sections. Following this introduction, the next section presents the qualitative and quantitative findings. The qualitative data was obtained from interviewing key informants in Thailand to gain a better understanding of the impact of ICTs on corruption reporting. Some of the findings are supported by statistics on suspected corruption that were reported through public anti-corruption agencies' whistleblowing channels. Statistical evidence on corruption reporting derived from the three main public anti-corruption agencies in Thailand including (i) the Office of the National Anti-Corruption Commission (NACC); (ii) the Office of the Public Sector Anti-Corruption Commission (PACC); and (iii) the Office of the Auditor General of Thailand (OAG). The last section summarises the key findings.

8.2 Research Findings

The sections below present the interview findings and statistical evidences to answer the research question. The findings to answer the two sub-research questions regarding the individuals' use of online and traditional whistleblowing platforms and the quality of the reports sent through the two categories of reporting platforms are reviewed in turn.

8.2.1 The Effect of E-whistleblowing on Individuals' Reporting Behaviour

As was mentioned in Chapter 4, previous studies point out that there are several factors that influence the likelihood of individuals to blow the whistle i.e. factors relating to corruption, factors relating to the whistleblowers, and contextual or situational factors. Similarly, this study found that such factors also affected whistleblowers' reporting behaviour.

In addition to traditional platforms (face-to-face, post, telephone, and e-mail) which are the common reporting channels, most of the anti-corruption agencies in Thailand offer a range of digital whistleblowing platforms including official websites, mobile applications, and social networking sites i.e. Facebook. According to the interviews, the use and improvement of digital platforms initially was fuelled by government policy and people's changing lifestyles.

Over the past few years, the government had a policy of encouraging citizens to report official corruption (Official 206, 210, and 211). As officials of a public anti-corruption agency which needs cooperation from citizens and actively responds to the government policy, some interviewees pointed out that their agencies realise the importance of ICTs and plan to promote and provide additional digital whistleblowing channels (Official 203). One interviewee explained why his agency has provided and improved online reporting platforms:

“I thought that we are living in a digital age and we must change [how we work] If people prefer to report from their mobile devices, they should be able to do so ... they should be able to report anytime and anywhere ... And currently the government puts more emphasis on responding to the citizens' needs and complaints.” (Official 211)

Some authorities see that 'convenience' is key to encouraging people to report corruption. Many agencies are considering the need to provide more digital reporting channels in which 'mobile websites' and 'mobile applications' are the reporting platforms they are developing and planning to launch. According to their experience and perspectives, some interviewees thought that, nowadays, people are less likely to report via desktop websites (Official 201 and Official 203).

Instead, a mobile website and mobile application, for example mobile messaging applications, are much more popular platforms among most of the people who use the Internet (Officials 201, 203 and 204). One interviewee whose agency is developing online channels by converting the desktop websites to a mobile website and mobile application gave an opinion about the needs for online reporting platform improvements:

“We see that the platforms [mobile websites and mobile apps] are more convenient [than the traditional platforms and desktop websites] ... for example, you can report suspected corruption, record a video, or take a picture and send it directly to us instantly. It’s easy and convenient ... Potential whistleblowers may feel like such corruption actually doesn’t trouble them. If tipping off can be done easily, there is more chance that they will report to us. But if it’s not [convenient to report], they might decide not to speak out.” (Official 201)

In addition, using online platforms is likely to save whistleblowers’ money compared to using offline platforms. Official 205 gave an example that, as the functions of the digital platforms i.e. mobile applications allow whistleblowers to check the progress of their cases online, this saves whistleblowers money and his agency saves approximately THB two million (approximately GBP 44,000) per year, excluding travel costs compared to using offline platforms such as post.

However, the online platforms which seem to be more convenient and less expensive have been used by whistleblowers less than the traditional platforms thus far. According to the interviews, there are three main reasons for this: (i) whistleblowers’ lack of IT skills; (ii) the perceived dangers of online whistleblowing; and (iii) whistleblowers not realising the importance of online platforms.

Firstly, most real insiders or potential whistleblowers are losing bidders, senior officials (Official 205) and trained local volunteers (Official 211) who are either not familiar with using ICT or cautious about the use of the Internet for tipping off (Official 202 and Official 211). Many interviewees pointed out that most of whistleblowers whom they used to deal with are older people who live offline or are not familiar with ICT applications (Officials 208, 209, and 211). Based on his experience, one interviewee said:

“Website is one reporting channel, but it’s not used by most whistleblowers ... Actually, online channels are convenient, but it turns out to be that most whistleblowers are not comfortable with using them ... We have to realise that not many older officials [who are more likely to be potential whistleblowers] are skilled enough in using ICTs.” (Official 202)

Another group of potential whistleblowers is trained volunteers who live in local or rural areas and usually contact the authorities via traditional platforms i.e. post. According to Official 211, “there are a lot of people who don’t know how to report via online channels, for example, how to attach files ... These people are the thousands of volunteers in local communities across the country who are trained by public officials in how to spot corrupt activities and then report to the authorities.” From the officials’ perspectives, online platforms are typically used by people with more education or middle or upper-class citizens who are not a majority of citizens in the country (Official 205).

Secondly, online whistleblowing is not perceived as a safe reporting option by users. Some interviewees ranked privacy risk and security concerns among the top barriers for whistleblowers. According to one interviewee, most whistleblowers who are public officials feel uncomfortable and fear retaliation (Official 202). In addition, some of them are not familiar with the Internet. One official stated that:

“Public officials are worried so much about being tracked, which might get them into trouble ... thus they normally prefer safer alternatives through which they will not be easily discovered [by their boss] ... They usually avoid using personal computers and instead use computers available in public areas ... For these people, tipping off by post under a pseudonym is a safer option.” (Official 202)

Among the online platforms, social media i.e. Facebook, appears to be the most risky reporting channel for whistleblowers from many interviewees’ perspectives. According to Official 202, such social networking sites tend to make everything users put on its network fairly public. Official 211 also said that even though his agency has an official Facebook page, the agency has never received a report from this channel because the social platform is not so private for whistleblowers and their personal information on their Facebook profile is visible to the public.

According to the information provided on the PACC, NACC, and OAG websites, all three agencies accept anonymous reporting but recommend reporters provide real personal information and contact details (NACC, 2015; PACC, 2016a; OAG, 2017). The NACC suggests that whistleblowers may provide fake information, but they are more likely to have their complaints rejected (NACC, 2015). For example, the PACC¹⁰ places types of informants into three categories: (i) those where the identity of informants is known, (ii) those where the identity

¹⁰ Only the PACC provided records on the number of corruption cases in public procurement that were reported anonymously. The number includes reports submitted through all whistleblowing platforms.

of informants is unknown (anonymous reports), and (iii) uncategorised cases as illustrated in Figure 8-1 below.

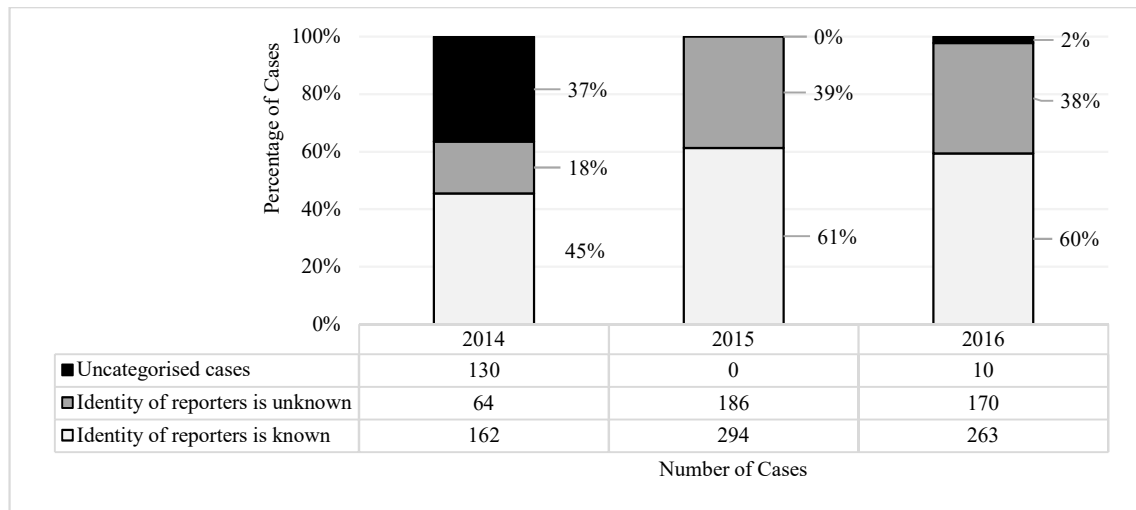


Figure 8-1: Types of Informants Who Reported Corruption in Public Procurement in 2014 – 2016
(Source: the PACC)

Even though not revealing real identity results in a greater chance that the agencies will reject the reports, there is a number of whistleblowers choosing to report suspected illegal practices in public procurement anonymously. The statistics presented in Figure 8-2 above show that approximately 18 percent, 39 percent, and 38 percent of total reports submitted to the PACC in 2014, 2015 and 2016, respectively, are anonymous reports. The proportion of anonymous reports might be lower than the proportion of reports that where the identity of reporters is known, but over 30 percent of anonymous reports on a three-year average (420 out of 1,279 cases) support the notion that many whistleblowers fear retaliation or may not trust in the protection systems.

Besides Facebook, many anti-corruption agencies in Thailand are developing and launching digital platforms i.e. mobile applications (Officials 201, 202, and 203). However, it is found that such online platforms may not be perceived as a necessary reporting channel (Official 206). For example, one interviewee whose agency is developing digital platforms put an opposite view to his agency's plan by saying:

“Our mobile home screen is sometimes already full of apps. In our entire life, do you think how many corruption cases will we perceive and how many cases will we report? Are there so many cases so that we have to have reporting apps on our mobile phone? For me, downloading [a convenience store] mobile app is worth more. If I want to tip-off, I will just make a call.” (Official 206)

In addition, one interviewee said that his agency has no plan to provide more digital platforms because the agency has already received a lot of complaints sent via traditional platforms each day (Official 202). Not only does this exceed the current investigators' ability to handle the cases in a timely manner, but the agency also sees that the current online platforms, i.e. official websites, are inclusive enough (Official 202).

There is statistical evidence which may support the interview findings presented above. Among the main public anti-corruption agencies in Thailand, the PACC provided records on the number of suspected corruption cases in public procurement they received in 2015 and 2016 through five reporting channels¹¹: walk-in services, post, hotlines, web portal, and others as shown in Figure 8-2 below.

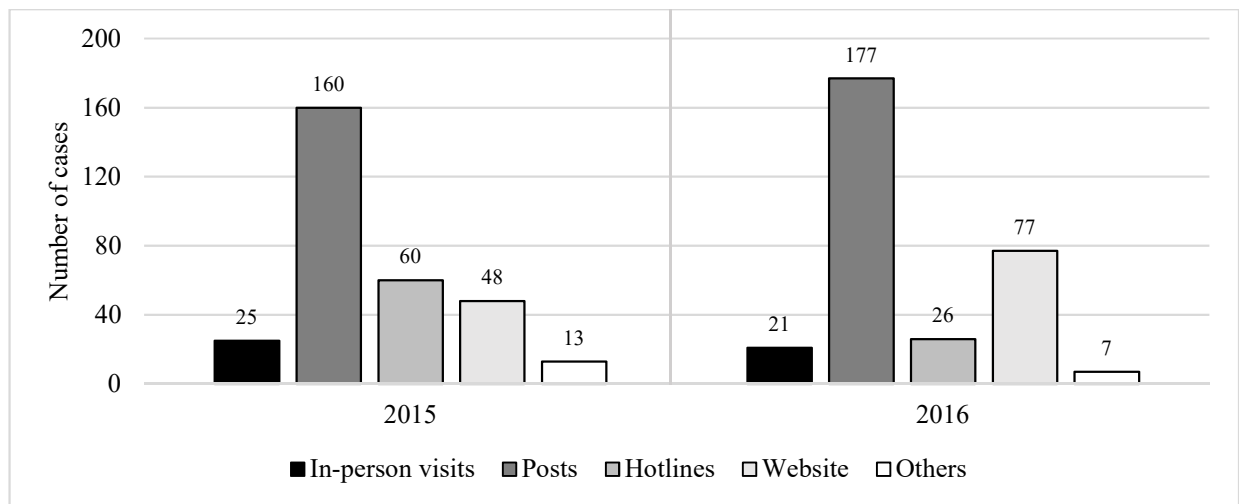


Figure 8-2: Total Number of Corruption Cases in Public Procurement Received through the PACC Reporting Channels in 2015 and 2016
(Source: the PACC)

Among the five platforms, the statistics show that post, the traditional offline channel, was the most used reporting channel in 2015 and 2016. In these years, the PACC received 337 cases by post, 125 cases from the official website, 86 cases from hotlines, and 46 cases from in-person visits. Importantly, even though the website has become the second-most used reporting platform in 2016, such an online platform is much less widely used than post.

Therefore, this may support the interview findings that on average most whistleblowers tend to use traditional platforms. The availability of online services, however, seems not to have a

¹¹ There is no record about the number of cases received from their social networking platform (Facebook).

significant impact on the whistleblowers' selection of reporting platforms. Most of whistleblowers still stick with the offline reporting channels.

According to the interviews, contextual or situational factors also affect whether individuals report misconduct via traditional or online platforms. The circumstances that (i) whistleblowers having strong evidence that supports their reports, (ii) poor functioning of online platforms, and (iii) limited Internet connection and ICT devices usage in local/rural areas are the key factors addressed by the respondents.

Firstly, when the whistleblowers are bidders, online channels are not typically used in raising a concern. Those suppliers who feel that a public agency has unfairly awarded the contract to corrupt bidding firms normally send an official letter on their company letterhead directly to anti-corruption authorities (Official 202). One interviewee said that according to his experience, most of the whistleblowers who have strong evidence do not report and submit evidence via online channels but they use traditional platforms such as walk-in with formal letters or by post (Official 206).

Moreover, it is found that some of the digital platforms provided by the anti-corruption agencies in Thailand seem not to be that convenient to use. The authorities suggest that these problems might cause whistleblowers to switch to the traditional platforms. Some interviewees mention that while whistleblowers can bring in as much evidence as they want by walk-in, they might be unable to submit such evidence online because of file size and word-count limitations (Official 208 and Official 211). On the one hand, one respondent whose agency mostly received tip-offs by post said that:

“We know the characteristics of reporters quite well because we have been dealing with a number of corruption cases for some time. The ones who have a lot of evidence about corruption normally are not going to report via websites cause it's not convenient for them ... They collect and send supportive evidence with a written report with very detailed information to us by post instead.” (Official 202)

On the other hand, there are also some agencies which receive a majority of reports via the digital reporting platforms. One interviewee whose agency attaches much weight to the web portal reporting suggested that the anti-corruption agencies should ensure that the platforms are well-designed and convenient for users so that the users' frustrations will be kept to a minimum (Official 211). It is found that the digital reporting channels of some anti-corruption agencies

(in this study) are hard to navigate, not having file upload functions available, and have bad content structure in which users may not easily find what they are looking for. Official 211, who has experience in managing online platforms, explained how he developed his agency's online reporting form on the official website:

“I put myself in whistleblowers' shoes and considered if I want to tip-off about suspected corruption I perceived, what message I will send and how I will send it. And I thought that what I want [the functions of reporting platforms] should be the same as the other whistleblowers. If the websites frustrate me, I'll definitely leave. So, my agency's website navigation and the content structure were designed to be easy to understand and not complicated. If you visit some other reporting sites, you will be confused. Users may fish around for a link to the reporting page.” (Official 211)

Limited access of ICT and ICT devices were identified as significant factors that negatively affect the use of online reporting platforms. According to Official 205, in addition to the fact that limited Internet connection is a factor that increases the risk of corruption, corruption in public procurement mostly occurred in public organisations located in local/rural areas where ICT and the Internet access were limited:

“Normally we get fewer tip-offs about corruption in the Central Offices (located in Bangkok Metropolitan Region) but more in Municipalities and Subdistrict Administrative Organizations where for example procuring by e-bidding is optional because a tighter procurement process (such as the use of e-procurement) usually is applied in the Central Offices while it's optional for those public organisations located in rural areas. Sometimes whether it's optional or not, these agencies tend to procure by other procurement systems rather than e-procurement with the limitation and the instability of the Internet used as an excuse. For example, government contracts amounting to more than two million Baht [which requires procuring by e-bidding system] are required to be announced publicly so that citizens can make suggestions on the TOR. But the procuring agencies divided the contract into sub-contracts and each sub-contract amounted to 1.8 or 1.9 million Baht, with more than ten sub-contracts altogether.” (Official 205)

As mentioned earlier, a number of potential whistleblowers are trained volunteers in rural areas (Official 211). The problem is that most of them do not have office equipment and ICT access, thus are most likely to use traditional platforms i.e. post to report or send the evidence to the authorities (Official 211). If potential whistleblowers are bidders or normal people who live in rural areas, Official 205 suggested that anti-corruption agencies should be more proactive in inspecting misconduct. Instead of waiting for the whistleblowers to send the reports to them via

traditional or online platforms, the authorities should come over to meet them in person (Official 205).

8.2.2 The Effect of E-whistleblowing on Authorities' Investigations

This section presents interview findings and statistics to answer the second sub-research question about the extent to which online reporting facilitates the authorities' investigations or whether online reporting facilitates the effectiveness of whistleblowing. On the one hand, this study found three key advantages of digital platforms including: (i) the use of social media to generate publicity, (ii) the use of social media to gather information related to corruption; and (iii) the use of online whistleblowing channels to deter corruption. On the other hand, the study found that the key benefits of e-platforms lead to two problems i.e. (i) problems with anonymity and (ii) problems with convenience.

According to the interviews, social media is a tool for generating publicity for the government anti-corruption agencies. As mentioned previously, many interviewees in this study pointed out that social networking sites, i.e. the anti-corruption agencies' Facebook pages, tend not to be used as a platform for whistleblowers contacting the authorities. Instead, all of the anti-corruption agencies with a Facebook page use it as a medium for public relations. According to Official 203, promoting the agency through the official websites may be out of date and it is not very helpful. Some of the interviewees believed that they should reach citizens or potential whistleblowers where these people will be looking for their information and Facebook is selected because it is the most used social media platform in the country (Official 203 and Official 212).

In addition to using Facebook to promote the agencies' tasks, some anti-corruption agencies use Facebook for outbound public relations particularly with independent watchdog organisations. There are media and civil society organizations (CSOs) in Thailand which make an effort to raise public awareness about corruption in public procurement by sharing suspected bid rigging on their Facebook pages. Instead of sending tip-offs directly to the authorities, these media and CSOs indirectly serve as a source and use Facebook for inbound public relations with the authorities. According to Officials 202, 206, and 211, some public anti-corruption agencies have made the move from being reactive to proactive anti-corruption agencies by making use of the information that these watchdog organisations share. One interviewee described about how his agency uses Facebook proactively:

“We may not mainly use Facebook as a whistleblowing platform, but we always keep an eye on independent watchdog organisations’ Facebook pages. Once they post information, we will do an inspection immediately. In fact, these are organisations run by trained volunteers and they usually check public procurement contracts. When they find something suspicious in government contracts, they will post information and the authorities will proceed with further investigations.” (Official 202)

Moreover, social networking platforms like Facebook might not be a popular channel for whistleblowing, but the power of social media should not be underestimated. From some interviewees’ perspectives, social media raises public awareness and it might indirectly help prevent corruption.

“Criminals [corrupt officials] must be more careful of what they do. If someone takes a picture or records a video about their illegal activities and shares it on social networking sites, it’s over. Even if the ones who perceived the incidents don’t report it to us, but the clip is shared online. Journalists will surely dig out the truth.” (Official 210)

In addition, the outstanding advantage of using online platforms are that some online tip-offs greatly facilitate the authorities’ task in preventing corruption from occurring and increasing government budget savings. One respondent said:

“It is better to take precautions before damage occurs. When corruption is disclosed later [the government contracts have already been awarded], it is a waste of time, money, and resources. Interventions [such as whistleblowing] could prevent it from getting worse.” (Official 208).

According to Official 202, the use of online whistleblowing channels to prevent corruption from occurring rarely happen. However, he explained the positive impacts of online reporting by comparing online whistleblowing with offline whistleblowing:

“Online reporting is quicker [than offline reporting] ... Suppose a person knows that this government department has created lock-out specs that are tailored for a pre-selected supplier. That person weighs up the situation and decides at the last minute to blow the whistle by sending a letter to us. But by the time we receive the letter, it’s too late. We can’t conduct a surprise check which might prevent corruption from occurring. Instead we have to conduct a retroactive audit which is not an easy task.” (Official 202)

“Once we were notified of a lock-out specification of [a name of government contract] we immediately warned the procuring agency against exclusion of potential firms from bidding. Our action later resulted in the contract cancellation. The project was relaunched and the competition was open to any potential firms. When the competition became more competitive, the winning firms of the previous bidding proposed lower prices than the first time but another firm, however, proposed an even lower price. In the end, the government saved more than THB 70 million [approximately GBP 1.56 million] which is not small amount of money.” (Official 202)

Despite several advantages, the big challenge concerning the use of digital whistleblowing channels is that the two key attributes of online platforms i.e. ‘anonymity’ and ‘convenience’ in fact have a negative effect. According to the interviews, a number of reports sent via online platforms did not support the authorities’ investigations as much as expected and were rejected more frequently than the reports sent through the traditional whistleblowing platforms (Official 202).

Firstly, there are problems with anonymity. Corruption case investigations and verifications require comprehensive reports, sufficient and relevant information on the matter, witnesses, and strong evidence (Official 208). Most of the respondents in this study insisted that anonymous whistleblowing with insufficient information does negatively affect the authorities’ investigation decisions and is one of main causes of a large number of complaints being rejected (Officials 201, 202, and 205).

It is found that many online anonymous whistleblowing are very short reports with unclear details and insufficient supportive evidence (Official 202 and Official 205). Thus, these cases are unable to proceed further unless the authorities devote lots of time and effort to discovering and examining the facts of the allegation (Official 202 and Official 205). Two interviewees explained the problems in detail:

“Most of the anonymous reports were too short and there was not enough information to suggest that the cases can be solved ... [so they were rejected]. For example, we received a five-line report without supportive evidence ... or someone sent a report saying that there is corruption in [name of department and province] on [name of a government project] amounting to 30 million Baht. And that’s it ... Some authorities suggested that such cases should not be proceed further because investigations incur costs and expenditure ... Importantly, without strong evidence, authorities might get sued by defendants.” (Official 205)

“There were cases where whistleblowers did not mention in which province the department is located and we couldn’t trace the online report back to its originator. It may be all in the whistleblowers’ head, but we didn’t know which department they referred to ... Unlike sending the reports by post, postal marking might be traced back ... And we once found that there are [Subdistrict Administration Organizations by this name] located in five provinces.” (Official 202)

In addition, while some whistleblowers choose to report anonymously, others make up fake identities by using other people’s name, national identification numbers, and contact information to register online and submit reports (Officials 203, 204, and 206). Official 206 pointed out that whistleblowers reporting corruption have to beware because they are easily affected by their own actions. Therefore, there were many cases of whistleblowers reporting anonymously or using fake identities to build their complaints’ credibility and convince the authorities to trust them (Official 206). In such cases, whistleblowers may either have the intention of making false claims or they report the truth but are too afraid to reveal their real identities (Official 206).

However, some officials pointed out that most tip-offs sent anonymously are less likely to be false or fictitious information. Official 205 said that “according to my experience, over 70 percent of tip-offs the agency received were the truth but inconclusive. It’s just whistleblowers are afraid that their identity would be disclosed.”

In such cases, some interviewees suggested that when reporting suspicious corruption especially corruption cases, traditional platforms i.e. walk-in or telephones have one key advantage over online whistleblowing and might be more beneficial for whistleblowers. According to Official 202, there were many cases where tip-offs sent online miss the point and the incidents reported were not a corrupt practice based on law. Therefore, the authorities spent much time and effort on verification. One interviewee suggested that offline platforms e.g., walk-in, where the authority can arrange a face-to-face interview and gain a better understanding of the case, are more likely to help facilitate their investigation process and reduce the chance of the reports being rejected (Official 203). Thus, whistleblowers using traditional platforms will have a better chance of accomplishment than reporting anonymously online. One respondent explained the case regarding information sufficiency:

“Elements of proof of corruption or corruption [by law] are, for example, composed of A, B, C, and D. Some whistleblowers might not know what such elements are composed of. Then they don’t mention details that bear on the important aspects or some elements of corruption are missing in their reports. But if we interview them face-to-face, we can ask probing questions to gain the information needed and determine if such suspected incidents of corruption are within the scope of corruption. So, we’ll know what actions we should take further.” (Official 201)

Furthermore, it was found that many whistleblowers used emotional instead of factual information when reporting anonymously via online channels. Rather than providing concrete evidence, some of reporters just wanted to vent their problems (Official 206 and Official 212). Emotional content might be more persuasive than facts, but investigating suspected corruption needs facts and strong supportive evidence. Hence, many online reports did not qualify for further investigations (Official 206).

In addition to the anonymity problems, many interviewees perceived that the convenience of online platforms makes reporting too easy which causes inappropriate use. Frequent discrediting of competitors and colleagues were pointed out as key disadvantages of the use of online channels. One respondent mentioned suppliers making misleading statements which defeated the purpose of the use of online platforms:

“Sometimes reporting anonymously [via online platforms] is about discrediting competitors. Corrupt practices reported might be the truth, but, for example, the TOR of a bridge construction project that has not been drafted but corrupt officials and suppliers make a secret agreement in advance ... Because the process of procurement has not started yet, we don’t have substantial evidence to verify misconduct. If reporting is with a good intention and the whistleblowers just want to prevent corruption or want to ensure construction quality, this is fine. But some whistleblowers just want to impede their competitors from winning the contract. It’s like if I don’t get it, then no one will. Businessmen are primarily concerned about their profits. If they lose revenue or profits, they might discredit their competitors.” (Official 205)

In addition to taking advantage of anonymous reporting via online channels to discredit competitors, one interviewee mentioned the inappropriate use of online platforms to libel colleagues in public agencies:

“We have also received many anonymous reports sent through online platforms [which the authorities cannot make use of it and were rejected] because reporting online is easy and it does not cost much. If you’re not happy with someone’s actions or behaviour, just send a report of their corruption [which might not be corrupt practices] ... From my perspective, online channels like mobile apps or social networking sites are too convenient and sometimes it’s not fair for a suspect. The trend is that we will receive more reports during specific months [the promotion periods]. It’s like discrediting their office rival.” (Official 206)

In such cases, some interviewees pointed out the advantages of offline platforms over online platforms. According to Official 206, “if whistleblowers write a letter and send it by post or especially walk-in which is the least convenient reporting channel, their reports are most likely to be incidents that directly affected them, thus there is less chance of giving a false statement.” Moreover, their identity can be identified more easily when using offline channels compared to online channels (Official 201). Hence, anyone who wants to report offline realises the negative effects they will get if they make misleading statements (Official 201).

Furthermore, it was found that the more convenient and the greater number of reporting channels available, the more likely that overlapping investigations will occur. According to the interviews, whistleblowers may engage in internal whistleblowing (reporting of corruption to the authority within the procuring agency) or external whistleblowing (reporting of corruption to authorities outside of the procuring agency). The problems arise as the internal and external recipients do not fully coordinate investigations and sometimes they are not aware that they are working on the same cases, which results in unnecessary duplication of work.

One interviewee referred to an internal overlapping investigation problem that his agency are facing which negatively affected the agency’s performance and how his agency responded to it:

“Because we have many branches operating [other than in Bangkok] and we sometimes found that our sub-departments in different locations received and worked on the same case ... Instead of sending a report to us only, whistleblowers also send it to other departments in our agency ... Moreover, sometimes whistleblowers were not the same persons, but they reported the same case to different departments. To avoid overlapping investigations, all departments have to forward the cases to [name of a department] to recheck whether or not such cases are already in progress.” (Official 205)

Some whistleblowers also blow the whistle to many external recipients at the same time which resulted in parallel investigations and a number of cases left uninvestigated each year (Official 201). According to Official 205, “We call it a bombardment reporting, meaning that [regardless of the departments or agencies’ scope of responsibilities] whistleblowers send a report to for example the Royal Thai Police, the Department of Special Investigation, the Prime Minister’s Office, the Anti-Money Laundering Office, the Office of the Ombudsman Thailand, and the PACC, NACC, OAG, etc.”

The statistics presented in Figure 8-3 below show the increasing number of corruption cases¹² reported to the NACC and left uninvestigated. Approximately 30 percent, 47 percent, and 54 percent of total reports submitted to the agency in 2014, 2015 and 2016, respectively, are left for the next year. The increasing proportion of the cases uninvestigated supports the notion of a bombardment of reporting problem.

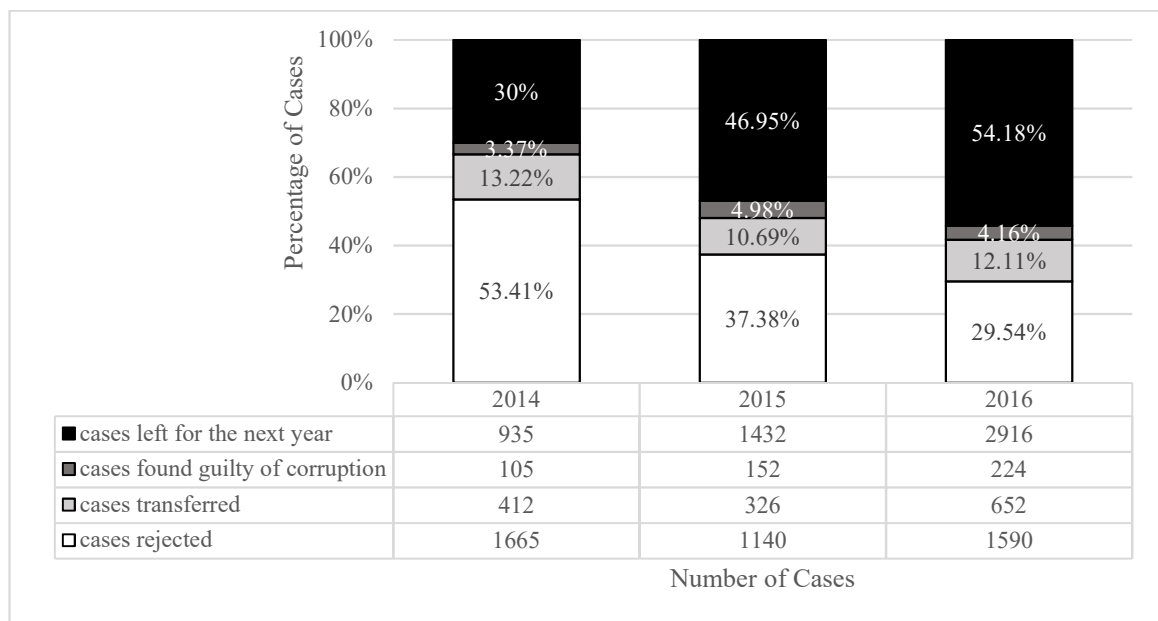


Figure 8-3: Percentage of Cases Left Uninvestigated between 2014 and 2016
(Source: the NACC)

From the officials’ perspectives, it is more likely that whistleblowers have relatively low trust and confidence in bureaucratic efficacy and would like to increase the chance of their whistleblowing being accepted (Official 205 and Official 202). According to Official 212, some

¹² The number presented in Figure 7-3 is the number of *all types of corruption* cases sent to the NACC.

suppliers who lost out and believed the competition was unfair thought that they had nothing to lose and just reported it to as many authorities as possible.

Coordination across the public agencies might be one solution to such overlapping investigation problems but it is likely to be impractical. According to Official 215, there was an attempt to improve coordination among all public agencies in Thailand to speed up the authorities' work and get the cases done faster. However, exchanging information is very difficult in practical terms even among different departments within the same agency because of data protection and confidentiality requirements (Official 215). Official 213 and Official 215 also pointed out that each public agency has its own private information and they have concerns regarding the level of the information secrecy.

There is statistical evidence which supports the interview findings regarding the ineffectiveness of online whistleblowing. Among the main public anti-corruption agencies, only the OAG has records on the numbers of reports that meet their requirements and are passed to the agency's investigators. The OAG categorises the cases they have received into three main groups: (i) in-person visits; (ii) telephone/e-mail/website cases; and (iii) reports via other government agencies¹³.

The statistics shown in Figure 8-4 (the first pie chart) below indicate that only approximately six percent of the cases which originate from telephone/e-mail/website are eventually passed to the OAG investigators. On the other hand, reporting via in-person visits have a higher acceptance rate (the second pie chart) as about 21 percent of the complaints are passed to the next process. The statistical evidence may partly support the interview findings and importantly answer the second research question that online reporting is less likely to facilitate the effectiveness of whistleblowing.

¹³ Other government agencies refer to other public authorities and institutes e.g., the prime minister, a member of parliament, the Auditor General of OAG, the State Audit Commission, etc. that directly request the OAG to investigate a case.

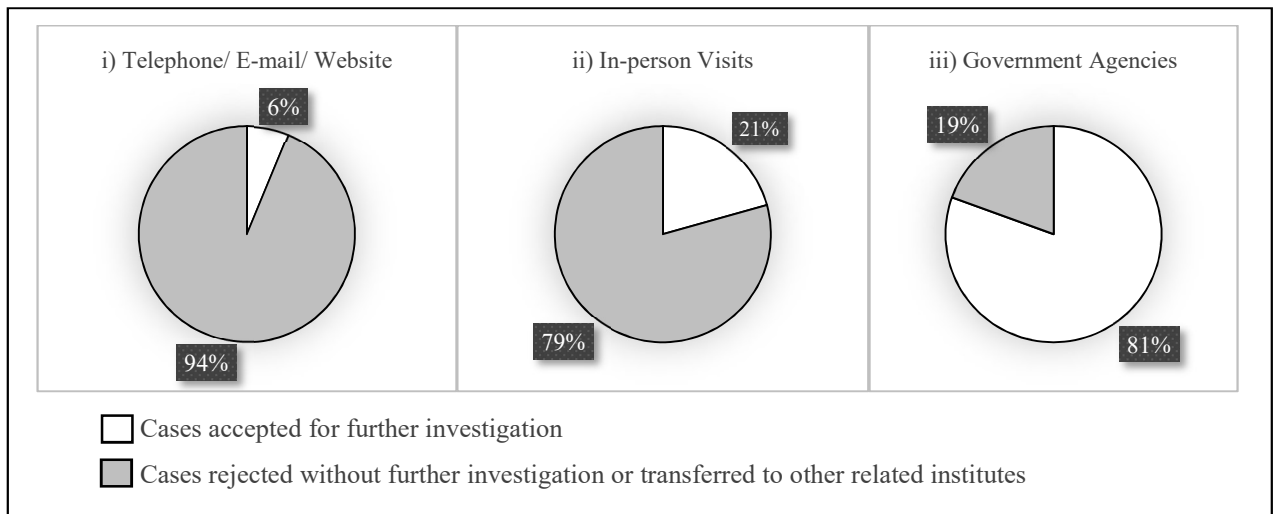


Figure 8-4: Percentage of Accepted and Rejected/Transferred Cases Submitted to the OAG in 2014 - 2016
 (Source: the OAG)

Moreover, the statistical evidence shown in the third pie chart indicates that the cases sent directly from other government agencies to the OAG have the greatest chance of being investigated as more than 80 percent of the cases meet the criteria for further verification. This is not surprising because such cases must have already been filtered by those government agencies before forwarding to the OAG.

8.3 Summary

This chapter aims to answer the second research question that whether e-whistleblowing platforms are effective anti-corruption tools in detecting corruption in public procurement. To answer the research question, two sub-research questions were proposed: (i) do ICTs affect individuals' reporting behaviour? and (ii) to what extent does the corruption reported via e-whistleblowing platforms facilitate the authorities' investigations?

Overall, the findings support the interventionist hypothesis that e-whistleblowing approaches are not effective anti-corruption tools in detecting corruption, especially when compared to the use of traditional whistleblowing platforms. Online reporting have several key advantages such as convenience, speed, cost savings, and anonymity. However, providing more e-whistleblowing channels seem not to have a significant effect on whistleblowers' reporting behaviour. Traditional platforms are more used than the online channels. Moreover, most electronic tip-offs are not helpful for further investigations, thus rejected.

Firstly, the findings suggest that *the availability of different digital platforms is less likely to lower individuals' perceived cost of being a whistleblower*. Traditional platforms, i.e. post, are more likely to be used by whistleblowers thus far in spite of more online options being available. The limited ICT skills of potential whistleblowers, a perception of the unimportance of e-reporting channels, security concerns, a lack of ICTs access/devices, and the poor function of online platforms are identified as the obstacles to blow the whistle online.

According to the interviewees, when it comes to misconduct in public procurement, potential whistleblowers are losing bidders, (senior) officials in procuring agencies, and trained volunteers in local/rural communities rather than ordinary people (Official 205). The authorities have perceptions that these potential whistleblowers are not the ones who spend most of their time on the Internet and sometimes ICT access and device are limited. Hence, the increasing of the amount of ICT usage in general, the increasing of e-government services, and the more benefits of e-whistleblowing platforms are less likely to influence whistleblowers' reporting behaviour.

In particular, the ones who are directly affected by unfair competition are bidding firms who lost out (Official 205). Corrupt activities are likely to be exposed only if there is conflict of interest (Official 205). According to the authorities in this study, if whistleblowers are losing bidders, they do not typically use online channels in raising a concern. These people send official letters on their company letterhead directly to the anti-corruption authorities (Official 202).

In addition, despite the increasing number of e-whistleblowing channels, online platforms of some anti-corruption agencies in this study do not work well (Official 211). Some authorities perceived and were informed that some whistleblowers were unable to report and submit evidence online because of word-count and file upload limitations (Official 208 and Official 211). Thus, it is not surprising that whistleblowers tend to file a complaint by post or meet with the authorities in person.

This supports the assumptions of Near and Miceli (1995) and Ayers and Kaplan (2005: 127-8) that reports sent by anonymous whistleblowers are more likely to appear less credible and not attract the organisation's attention. In this circumstance, the perceived cost of reporting via traditional channels by revealing personal identity (i.e. walk-in and official letters) seems to be worth more for the losing bidding firms than reporting anonymously online which increases the risk of non-responsiveness and being rejected.

In addition to the losing bidders, most real insiders are (i) volunteers in local areas who lack of ICT access and devices and (ii) senior officials (older generation) who are not familiar with using ICTs. According to the respondents, these potential whistleblowers are more cautious about the use of the Internet for reporting corruption (Officials 208, 209, and 211). Therefore, online reporting seem not to be their preferred choices but traditional platforms using a pseudonym (Official 202 and Official 211) to avoid being tracked or discovered by their employers or higher-level officials (Official 202).

Based on the findings above, it supports the power theory of Near et al. (1993: 384) and the theory of upward deviance of Black (Miceli et al., 1999). People in a stratified society normally tend to be aware of the high risk of reprisal (Miceli et al., 1999). Traditional Thai society is highly stratified and hierarchical (Vichit-Vadkan, 2011: 85). If the subordinates attempt to terminate the corruption by filing a complaint against the ones who are in higher position than them, they are at risk of retaliation (Near et al., 1993: 384; Miceli et al., 1999).

The benefits of e-whistleblowing, i.e. anonymity and the two-way communication functions, have the capacity to reduce the perceived risk of retaliation. However, the findings turn out to be the opposite. The interviewees pointed out that using online platforms is in fact perceived as less convenient and carries a higher risk of retaliation to the potential whistleblowers. Specifically, the respondents have perceptions that the whistleblowers have to make more effort than when using traditional platforms such as post. For instance, whistleblowers avoid using personal computers and instead use computers available in public areas to avoid being tracked or discovered by their employers or higher-level officials (Official 202).

The circumstances above are consistent with the assumptions of Near and Miceli (1995) and Ayers and Kaplan (2005: 127-8) regarding anonymous reports. As whistleblowers want to avoid reprisals, sending anonymous reports will lower the chance of the organisation contacting them and their personal information being revealed. Thus, this lowers their perceived personal cost of blowing the whistle (Near and Miceli, 1995; Ayers and Kaplan, 2005: 127-8). However, this does not increase the use of online whistleblowing by whistleblowers. More importantly, online reporting channels are perceived as a less necessary platform compared to the traditional platforms in this study (Official 211).

In addition, the statistics recorded by the PACC (Figure 8-2) show that the number of anonymous whistleblowers is higher than non-anonymous whistleblowers. The authorities

suggest that non-anonymous reports are mostly sent from the losing bidders while anonymous reports are more likely sent from public officials and trained volunteers (Official 202 and official 205).

Furthermore, the findings suggest that where ICT access and digital devices usage are limited, a proactive approach is recommended rather than a reactive one. For instance, in this study, corruption in public procurement tends to occur in Municipalities and Subdistrict Administrative Organizations where procuring by e-procurement is optional and there are Internet connection and ICT devices usage problems (Official 205). Therefore, this is another significant factor that discourages online whistleblowing. Rather than promoting the use of online channels in a location where ICTs are not as popular, the interviewee made suggestions based on his experience that the authorities still have to proactively meet local people in persons in order to receive a tip-off (Official 205).

For the second sub-research question that whether the online reports pass the authorities' criteria and are accepted for further investigations, the findings suggest that a number of online reports has a low acceptance rate. The interview findings reveal both positive and negative outcomes of the use of online whistleblowing in facilitating the authorities' investigations but the main problems include the inappropriate use of online platforms by whistleblowers and poor quality tip-offs. The respondents and statistical evidence suggest that not many corrupt activities were terminated within a reasonable time frame and there were a number of online whistleblowing cases rejected. In addition, corruption cases reported via traditional platforms are more helpful for further investigations than online platforms.

On the positive side, online platforms such as Facebook are used by most of the anti-corruption agencies in this study to generate publicity. Facebook appears to be the most risky online platform for whistleblowers because the personal information of the users is visible to the public (Official 202). Instead, the government agencies use Facebook for outbound public relations with independent watchdog organisations to collect information and evidence about corruption posted on these organisations' Facebook pages. This study found that using external reporting channels might be a good alternative option for potential whistleblowers to accomplish their goals. In addition to providing comprehensive reports and strong evidence to increase a chance of whistleblowing being accepted by the authorities, the interviews imply that external whistleblowing to the media or CSOs is another alternative for whistleblowers to accomplish their goals.

Nowadays, public agencies are well aware of the power of the Internet and social media. Facebook is not purposely used for receiving complaints as mentioned above. Instead, the public agencies are shifting from being reactive to proactive because there is high potential for their reputational damage once the media and CSOs post their allegations of corruption to Facebook. Therefore, these independent watch-dog organizations, whose voices on social media matter more than before, have become a significant source of valuable information for the public agencies and public anti-corruption authorities. More importantly, this kind of reporting is likely to facilitate the effectiveness of whistleblowing more than using the official channels because the public agencies tend to give priority to the cases being shared by the media and CSOs on the social networking site.

Furthermore, as reporting online is quicker than offline, some reports may facilitate the authorities' investigations and can prevent corruption from occurring and increase government budget savings (Official 202). The findings imply that for the anti-corruption agencies that have the responsibility or power to conduct surprise checks on a procurement that is still in process or where the contract has not yet been awarded, online whistleblowing can effectively prevent corruption from occurring. In contrast, online whistleblowing seems to be less effective if reporters blow the whistle to anti-corruption agencies whose investigations require an obvious proof of corruption or who can only accept cases if corruption has already occurred. As many online tip-offs lack strong evidence and are sent anonymously, which are difficult to track back, not many online reports can prevent corruption from occurring or facilitate corruption detection (Official 205).

The two cases above, however, are partly in accordance with the interventionist approach. This anti-corruption approach takes place at the very last stage of corruption (Vander Beken, 2001: 409) or waits for illegal actions to happen so that the offender can be charged by the authorities (McCusker, 2006: 8; Larmour and Wolanin, 2013: xv). Hence, a society can be protected by discouraging the criminal from continuing or repeating the crime (Larmour and Wolanin, 2013: xv). This study may reveal evidence that online whistleblowing can stop corrupt officials and bidding firms from continuing misconduct but, in fact, it may not.

According to Official 202, a surprise check of one government project resulted from online whistleblowing. The case is evidence to support that 'speed' as one of the key features of online platforms is that they can terminate the suspected misconduct promptly and prevent corrupt suppliers winning the contract. Relaunching the procurement ultimately saved more government

money. The second procurement may help to lower the price, but it cannot prevent the corrupt parties from repeating illegal practices. Bidding at a lower price may just help to avoid reinvestigation and pre-suppose that the same firm still wins the contract in the second procurement. Online whistleblowing in this case would then become less effective. Presumably this could occur with traditional whistleblowing too.

On the negative side, it was found that two key attributes of e-whistleblowing platforms, anonymity and convenience, in fact, have a negative impact on corruption investigations or the effectiveness of whistleblowing. In particular, a number of online reports did not facilitate the authorities' tasks and were rejected more frequently than the offline reports (Official 202). Most anonymous reports sent via online platforms are very short, unclear and provide insufficient supportive evidence. As the authorities rarely followed up the anonymous reports, many were rejected or the authorities devoted lots of time and effort to examining the facts of the allegation (Official 202 and Official 205).

Tracking online reporting may be possible, but the findings imply that the authorities do not want to spend time on such tracking activities. For example, one interviewee said that his agency has no plan for launching digital whistleblowing channels because the agency is working at full capacity and the available platforms are inclusive (Official 202). So those anonymous reports with insufficient evidence have a high chance of being rejected and are considered as ineffective whistleblowing.

Moreover, as e-platforms allow anonymous reports which probably facilitate reporting more than traditional platforms, this study found that it causes an inappropriate use by some users. Some whistleblowers take advantage of anonymity and convenience to submit false claims to discredit their competitors and colleagues. This creates unnecessary work for the authorities. Moreover, the findings show that the unnecessary duplication of investigations among government departments and public anti-corruption agencies are a result of an increase in online platforms and a lack of trust and confidence in the bureaucratic efficacy of whistleblowers. From the authorities' perspectives, traditional platforms such as walk-in or post, which seem to be the less convenient reporting channels, help their investigations more than online reporting.

According to the previous studies (Near et al., 2004: 230; ERC, 2012b: 15) which were mentioned earlier, the observers of corruption did not report misconduct because they believed that no corrective action would be taken. In contrast to the findings, a lack of trust and

confidence in the authorities and reporting systems in this study seem not to lower the likelihood of some whistleblowers blowing the whistle. Instead, the whistleblowers used a bombardment reporting strategy in order to increase the chance of their complaint being investigated (Official 202 and Official 205). It may be concluded that *online platforms to some extent facilitate whistleblowing but are less likely to facilitate the authorities' investigations*. A parallel investigation of several departments at the same time results in a number of cases left uninvestigated each year as agencies are unaware that others are working on the same case.

Cooperation among public agencies or leveraging the use of a digital information hub might be one solution to the duplication problems. However, the findings suggest that for some cases, corruption investigations are too complex and sensitive for information sharing to be practical. In addition, the findings suggest that sometimes there is no point in raising a concern with many public agencies or contacting them through every available platform. If the whistleblowers send the complaint to the wrong departments, the case may take time to get to the right place or is rejected which neither benefits the whistleblowers nor the complaint recipients.

The key qualitative findings of e-whistleblowing platforms are summarised in Table 8-1 below.

| Potential Whistleblowers | Factors Related to Whistleblowers | Contextual Factors | Whistleblowing Platforms | | Type of Reports |
|-----------------------------------|--|-----------------------------------|-----------------------------|--|-------------------------|
| Bidding firms | N/A | Having strong evidence | Using traditional platforms | Formal letter, walk-in | Non-anonymous |
| Trained volunteers in local areas | Lack of ICT skills/access | Having strong evidence | Using traditional platforms | Letter | Anonymous |
| Public officials | Being cautious about online reporting security | Having strong evidence | Using traditional platforms | Letter | Anonymous |
| | | Having weak/insufficient evidence | Using e-whistleblowing | Online reporting platforms via official websites, e-mail | Anonymous/fake identity |
| Media/CSOs | N/A | Having strong evidence | Using e-whistleblowing | Social media | Anonymous |

Table 8-1: Summary of the Qualitative Findings of E-whistleblowing Platforms

Chapter 9 Final Conclusions

9.1 Introduction

To conclude the thesis, this chapter provides a final evaluation of the findings and further implications. Firstly, the chapter briefly recaps the key findings of e-procurement systems and e-whistleblowing and provides an answer to the research questions focusing on the extent to which ICTs can lower opportunity for corruption and detect corrupt practices in public procurement. This serves as preparation for further analysis of the relevance of the findings from an academic and practical point of view or generalising the key findings to other countries, especially in developing world where corruption is systemic. The implications are provided as the lessons that we can draw from the case study of Thailand for transparency-enhancing anti-corruption reforms in general. After that, the chapter outlines limitations of this study and concludes by suggesting areas for future research. On the one hand, the chapter provides final thoughts concerning the insights emerged from this study. On the other hand, the chapter identifies which areas of the study needs more in-depth analysis so as to broaden and deepen the theoretical and empirical knowledge in the fields of corruption and anti-corruption interventions.

9.2 Summary

Corruption is a serious problem that adversely affects social and economic development and political stability in many societies. Thailand is an upper-middle-income country where corruption is rampant. Corrupt practices occur in many circumstances but public procurement is one of the most common sources of corruption in the country. As the number of Internet and social media users in Thailand has skyrocketed, the Thai government has been increasingly turning to digital technology in the fight against the problem. This study examines e-bidding, a new and entirely online procurement system, and e-whistleblowing, an online reporting platform, the two mechanisms based on principal-agent approaches.

The analysis is divided into two main parts (Figure 9-1). The first part (Chapter 6 and Chapter 7) focuses on examining e-bidding, the managerialist anti-corruption tool aimed at removing the opportunity for corruption. Initially, the government expected that e-bidding, whose online function is designed to fix the lack of transparency of the offline process of e-auction, would increase process transparency and so eventually reduce the risk of corruption. The first research

question addressed is whether e-bidding reduces the risk of corruption in public procurement. Based on collective action approach, the recent theoretical corruption literature, this study proposes a managerialist hypothesis that e-bidding does not reduce the risk of corruption.

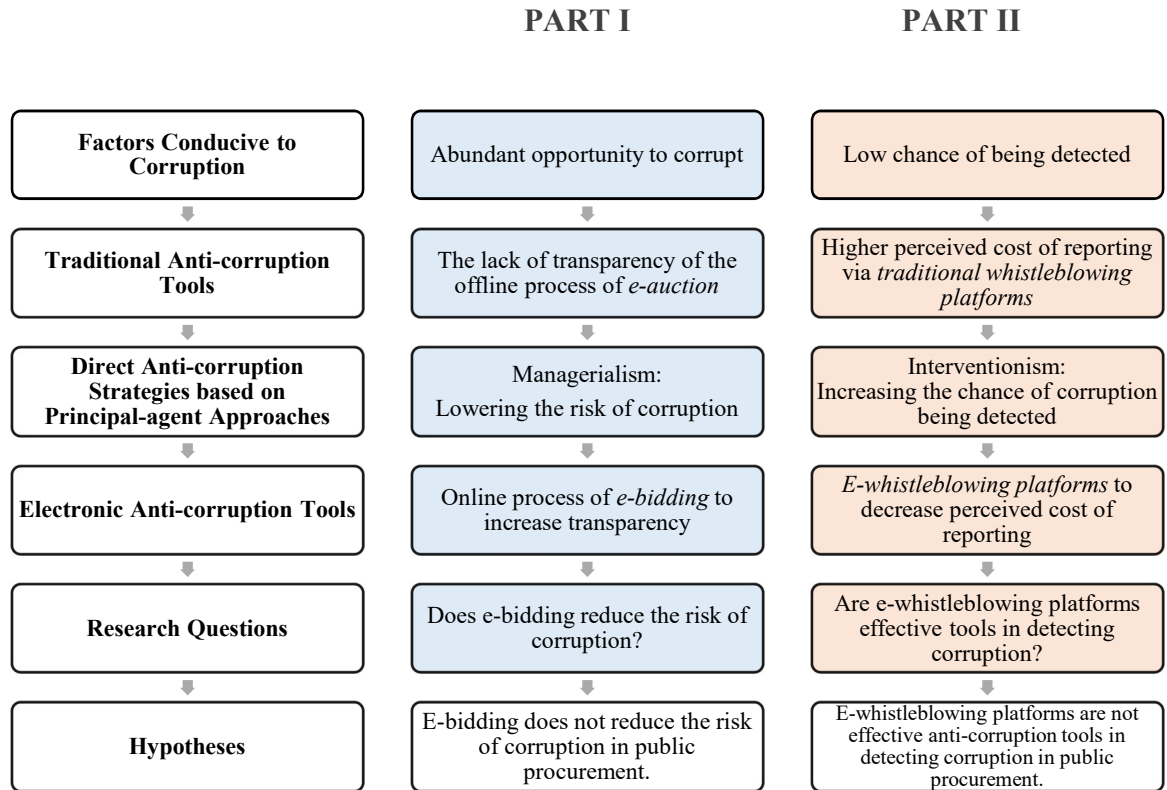


Figure 9-1: Structure Analysis

The second part (Chapter 8) investigates the effectiveness of e-whistleblowing platforms, the interventionsist mechanisms aimed at detecting corrupt practices which have already occurred. ICT usage in Thailand has increased significantly in recent years as shown in Figure 1-1 in Chapter 1. The Internet, mobile internet, and social media usage have been rapidly increasing. The Thai government thus attempts to deploy ICT-driven anti-corruption initiatives to suppress corruption. In doing so, online reporting channels such as an online form on official websites and mobile applications are added to to facilitate whistleblowing (The Secretariat of Cabinet, 2015, 2016, 2017).

As the key benefits of e-whistleblowing are likely to include lowering the potential whistleblowers' perceived cost of reporting, online platforms have capacity to increase potential whistleblowers' willingness to blow the whistle, thus further supporting the authorities'

investigations. Based on principal-agent theory, it may seem reasonable to assume that the whistleblowers switch from using traditional platforms to digital platforms or the authorities may receive more tip-offs via digital channels, thus it increases the probability of corrupt behaviour being caught.

However, the anti-corruption means are used in a highly corrupt and particularistic society. The analysis in this study, therefore, aims to answer the research question as to whether e-whistleblowing platforms are effective tools in detecting corrupt practices. Similar to the managerialist hypothesis, this study proposes an interventionist hypothesis that the use of e-whistleblowing platforms are less likely to increase the chance of corruption detecting.

The two hypotheses have been tested by using a mixed-methods approach that include qualitative and quantitative data collection methods. Firstly, in-depth interviews with public officials were conducted in Thailand. The respondents provided explanations for and opinions/experience of e-procurement systems and e-whistleblowing platforms that were unavailable in any published documents (Diggs-Brown, 2011: 120). As corruption is a sensitive issue, non-probability and snowball sampling methods helped to get deeper and truer insights into corrupt practices, whistleblowers' behaviour, and the effectiveness of the anti-corruption mechanisms. This was followed by quantitative data analyses which served to verify and support the interview findings (Skinner, 2008: 449).

9.2.1 Findings to the Research Question 1: E-bidding Aimed at Removing Corruption Opportunities

In the qualitative study, the research explores the officials' perspectives and experience regarding the effectiveness of e-bidding, the online procurement systems, compared with e-auction, a mix of offline and online procurement process. This study found that there are different perceptions regarding the capacity of e-bidding in preventing the risk of corruption. While most of the research participants confirmed their perception that the online functions of e-bidding can reduce the risk of corruption more than e-auction, some interviewers pointed out several limitations of e-bidding which imply that ICTs cannot overcome corruption problems.

Additionally, the findings suggest that 'time' is a factor that may affect the effectiveness of e-bidding. On the one hand, some officials believed that e-bidding should perform better over time in reducing the risk of corruption as the system is in place. On the other hand, some interviewees

argued that the new procurement system will lead to a new form of corruption. Corrupt people eventually find a way to overcome e-bidding. Consequently, the system would be getting worse over time. Figure 9-2 below summarises the results of the qualitative study.

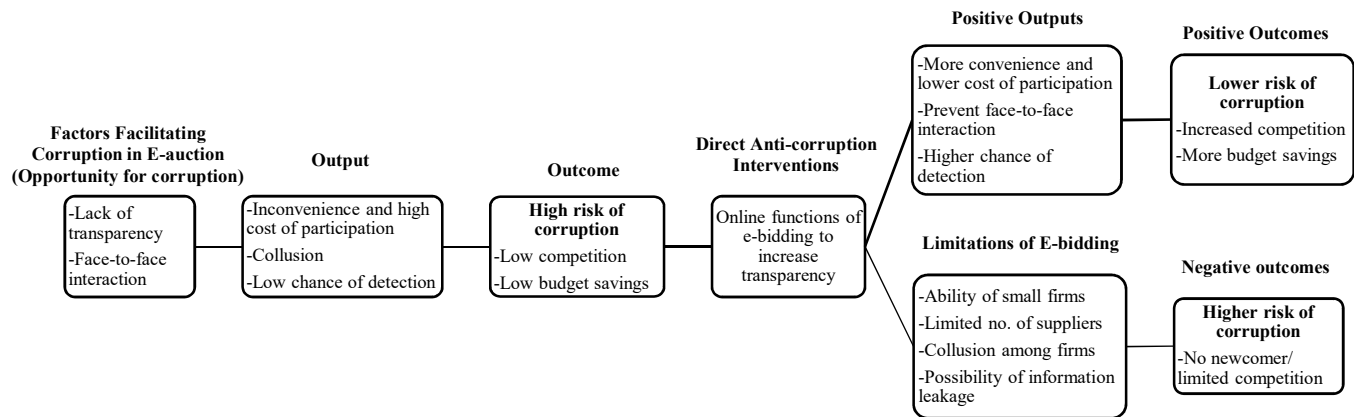


Figure 9-2: Summary of the Qualitative Findings: E-auction and E-bidding

In this study, offline procedure of public procurement systems is perceived as an *opportunity* for corruption. According to the interviewees' perception and experience, before the use of e-bidding, the two main causes of corruption in e-auction are that the procurement process is *not transparent* and the process involves *face-to-face interaction* among bidders and between officials and bidders (Official 107). The offline process, which is non-transparent, does not facilitate bidders' participation (*inconvenience*) and participating an auction incurs *high cost* compared to e-bidding. In addition, e-auction creates a *high chance of collusion* among several parties involved in procurement such as the officials and the potential bidders and the probability of this *being detected is relatively low*.

Specifically, face-to-face interaction between public officials and potential suppliers in e-auction are identified as an opportunity for corruption. The interaction occurs during the periods of purchasing bidding documents and technical offers submission which would be done at the specific designated place. This means that the procuring agencies know who would be bidding participants. Corrupt firms then could ask the officials for a list of the qualified bidders (Official 101) and a bribe is offered by corrupt bidders in exchange for such help. This, therefore, allows the corrupt firms to have a pre-bid negotiation with their competitors (Official 103) to limit competition. Consequently, the *competition in e-auction is lower* and *public agencies save less*

than anticipated. According to the respondents, this implies that the risk of corruption in e-auctions is high.

E-bidding is developed to replace e-auction and to *eliminate corruption opportunities* by closing such loopholes of e-auction. As all process is conducted online and face-to-face interaction is removed, the respondents confirmed their perception that e-bidding facilitates competition and prevents corruption more than e-auction. The key positive effect of replacing e-auction with e-bidding is an *increase in transparency* which resulted in *more convenience, lower participation cost, no face-to-face interaction* among the key stakeholders, and more *chance of corrupt practices being caught*. Therefore, e-bidding is claimed to reduce corruption because of an increased number of bidding participants (*higher competition*) and more *budget savings*.

Firstly, the interviewees state that the online process of e-bidding reduces costs and removes the inconvenience of potential bidders' participation. Therefore, e-bidding heightens competition as the number of bidding participants including newcomers increases significantly.

Secondly, it was believed that face-to-face interaction during the offline process of e-auction allowed contact between potential bidders and officials and among bidding firms e.g., when purchasing and submitting bidding documents at the procuring agencies. These interactions are entirely replaced with the online process. The interviewees believed that, as a result, bidders could not collude with any other potential bidders as they were unable to identify their competitors. Moreover, the procuring agencies are blocked from monitoring or viewing the systems until the bidding process is completed. This eliminates the opportunity of official-bidder collusion. In addition, technical proposals and price submission via the website makes third-party service providers unnecessary. Thus, the opportunity of bidder-staff collusion is also removed. As a result, the respondents perceived that e-bidding reduces the risk of bid rigging and encourages competition relative to e-auction.

According to the interviewees, the use of e-bidding also creates pressure on the potential suppliers and indirectly forces them to propose the lowest-price bid. More importantly, the significant positive impact of e-bidding stated by the officials is that the government saved approximately 11-13 percent on average of the budget while e-auction generated only 5-6 percent on average in budget savings (Official 107).

Thirdly, the officials believed that the online procedures of e-bidding make the procurement process more open and transparent. When e-bidding attracts newcomers and increases the

number of potential participants, this increases a chance of corrupt activities being detected. As the online system allows people to keep track of the bidding activities at all time, a biased TOR or specification is more likely to be detected by the potential bidders.

On the other hand, the findings suggest that e-bidding is still not a silver bullet for corruption. Few interviewees strongly believed that even though the lack of transparency in the offline process is replaced with the online process, there are several circumstances in which limit competition and corrupt practices are still possible. Four key limitations which possibly increase the risk of corruption in e-public procurement are identified.

Firstly, while there are a number of new comers participating in bidding for government contracts, many suppliers, especially *smaller firms, are unable and/or unwilling to adapt themselves to the online systems*. Consequently, the participating or winning suppliers are veteran bidders. This implies that competition is limited and this increases the risk of corruption.

Secondly, online procurement systems do not help increase competition when there are a *limited number of supplies* in a particular market. The interviewees pointed out that in reality there are not many firms which can bid for a high value government contract (a mega project) and non-standard products. In other words, the online systems are unable to bring in new potential bidding firms in these cases. The bidding firms, therefore, are most likely to be veteran bidders rather than newcomers.

More importantly, online systems *could not prevent collusion among suppliers*. In some cases, firms make an agreement to divide up customers (public departments). The firms participating in bidding for the same contract are sometimes not independent. In addition, online systems are always at risk of being hacked despite the security programs in place. There is no concrete evidence of information leakage, but unauthorised access during the submission periods is not impossible.

This study also assumes that ‘time’ might be the factor that affects the risk of corruption in e-bidding. As e-bidding is a new system, IT problems and the unfamiliarity of users (bidders and procuring officers) are found to be the main causes of low competition, i.e. fewer tenders received and fewer valid tenders, during the earlier period of the use of e-bidding. Then, when the users get used to the new procurement system, competition in e-bidding should be increased over time (Official 107). In contrast, some interviewees strongly believed that corruption in e-

bidding might not be found now but new procurement methods will eventually lead to a new form of corruption at a future date (Official 120 and Official 121).

Overall, while some interviewees confirmed their experience and perspective that e-bidding can prevent corruption by increasing competition, the others felt the opposite. Even though the supporters' views hold true, the oppositions identified several circumstances of collusion that could occur in e-bidding. This implies that the electronic mechanism has struggled to solve the problem which supports the managerialist hypothesis.

The hypothesis was tested objectively by regression analysis. The study uses three quantitative indicators of a corruption risk in the different stages of the public procurement process proposed by Fazekas et al. (2013b) i.e. single received bid (submission phase), single valid bid (assessment phase), and winners' market share (overall). In this study, single received bid and single valid bid are prone to corruption because both e-auction and e-bidding systems are normally not used for bidding for monopoly goods or services which have no close substitutes. Only one bid submitted or passed the evaluation therefore signals the risk of corruption. In addition, a few dominant bidding firms with high market share is likely to be prone to corruption.

The study investigates the effectiveness of e-bidding by (i) comparing e-bidding in three different periods of the first year of its operation; (ii) comparing e-bidding with e-auction; and (iii) comparing e-bidding in period II and period III with e-auction.

The findings, as summarised in Table 9-1 below, support the managerialist hypothesis. Firstly, the regression suggest that e-bidding in the first year of its operation did not increase competition compared with e-auction. Compared to e-auction, a firm bidding for e-bidding contracts gains higher market share. Based on the interviews, the regression results might be explained by the fact that the effectiveness of e-bidding in preventing corruption is limited because several key anti-competitive activities that seemed not to be overcome by the online functions and e-bidding in the first year did not fall into place.

On the one hand, corruption can occur regardless of the procurement systems. Specifically, a limited number of suppliers in the markets especially in mega projects and complex products possibly leads to the collusive firms taking turns at winning the contracts (bid rotation) (Official 125). In addition, collusion among suppliers (market division) may not increase the number of potential bidders especially newcomers (Official 106).

| E-procurement Systems | Regressions | Quantitative Findings | | |
|--|--|--|---|--|
| | | Single Received Bid (Submission) | Single Valid Bid (Evaluation) | Winner's Market Share (Overall) |
| E-auction Vs E-bidding | R4: On average, is a winner's market share under e-bidding lower than e-auction? | - | - | On average, a winner's market share under e-bidding is higher than e-auction. |
| E-bidding across Three Periods | R1-R3: Does e-bidding reduce/lower the number of single received bid contracts, the number of single valid bid contracts, and a winner's market share over time? | E-bidding reduces the number of single received bid contracts over time. | E-bidding reduces the number of single valid bid contracts over time. | On average, a winner's market share under e-bidding is lower over time. |
| E-auction Vs E-bidding in period II and period III | R5: On average, is a winner's market share under e-bidding in the later periods lower than e-auction? | - | - | Once e-bidding falls into place, on average a winner's market share under e-bidding is still higher than e-auctions. |

Table 9-1: Summary of the Quantitative Findings: E-auction and E-bidding

On the other hand, the new system of e-bidding has not yet fallen into place and one year of its operation might be too short to compare the system with e-auction. Changing from a mix of online and offline bidding system to an entirely online system might significantly block a number of potential bidders. IT problems were pointed out by many interviewees as a cause of late submissions and unintentionally submitting incomplete tenders (Officials 103, 105, 107, 111, 125, and 129). The unfamiliarity of users with the system meant that officials found incorrect or mismatched information between the database and the submitted proposals (Officials 102, 107, and 112) and this was also claimed as a reason for many tenders' disqualification. Consequently, this might explain the results that why the risk of corruption in e-bidding, which is claimed to have more transparency, is higher than e-auction.

Secondly, the regression outcomes indicate that there is a negative relationship between the time periods of the use of e-bidding and the risk of corruption. On average, e-bidding performs better over time in reducing the risk of corruption across the three procurement phases: submission, assessment, and overall. This means that there is an improvement of e-bidding over time in reducing the number of single received and single valid bid contracts and decreasing a winner's

market share on average. The results might support the qualitative findings that the obstacles e.g., IT problems have been tackled and it might take time for the users to become familiar with the new online system and that they have learnt from their mistakes (Official 107 and Official 129). However, the regression outcomes indicate that even though e-bidding shows positive progress in increasing competition or lowering the risk of corruption over time, a firm's market share in the later periods of e-bidding (period II and period III) is still higher than e-auctions on average.

In sum, the findings support the managerialist hypothesis that e-bidding does not reduce the risk of corruption in public procurement, especially when compared to the previous system. E-bidding in the first year is conducted in a less competitive bidding environment than e-auction. According to the interviewees, regardless of bidding methods, competition in terms of the participation of newcomers can still be limited and collusion is still impossible to prevent. Importantly, public procurement reforms could foster new types of corruption by taking advantage of the gap in regulations or laws. E-bidding that allows more single received and single valid bid contracts may facilitate corrupt practices. Corrupt techniques to overcome the new procurement systems may also be found and used in the future.

9.2.2 Findings to the Research Question 2: E-whistleblowing Aimed at Increasing Detection Opportunities

The e-procurement analyses showed that e-bidding cannot entirely prevent corruption and by its nature corrupt practices can be difficult to detect. However, in many circumstances, the evidence of corruption will become available through the cooperation of the observers of the corrupt practices and the public authorities or when the whistleblowers blow the whistle. Despite several key benefits, the findings in this study suggest that e-whistleblowing platforms are not effective in detecting corruption in public procurement relative to traditional platforms. Figure 9-3 below summarises the key findings of the study of e-whistleblowing platforms.

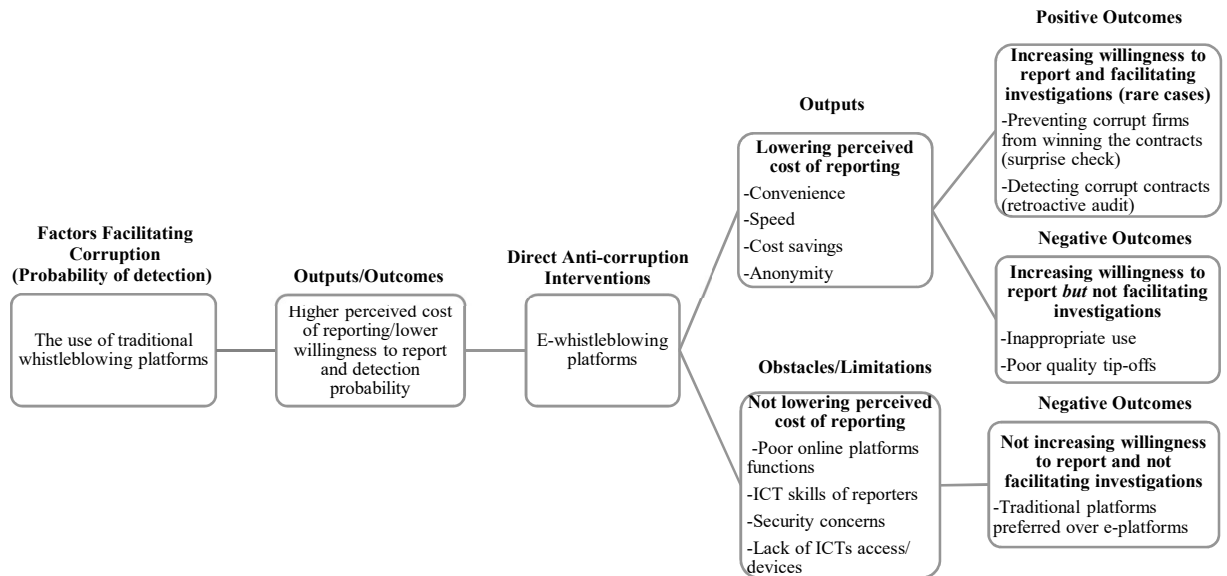


Figure 9-3: Summary of the Qualitative Findings: E-whistleblowing Platforms

Specifically, the use of e-whistleblowing platforms has three key outcomes. Firstly, *e-whistleblowing platforms increase the likelihood of corruption reporting and facilitate corruption detection*. The key advantages of online platforms such as *convenience, speed, cost savings and, anonymity* seem to encourage whistleblowing and do facilitate corruption investigations. It was found that there are two kinds of investigations: (i) a surprise check during bidding process and (ii) a retroactive audit of the awarded contracts. For the first case, online whistleblowing deters corrupt suppliers from winning government contracts. Authorities receive tip-offs beforehand or before the contracts are awarded which allows them to do intervene (a surprise check) and relaunch bidding (Official 202). The successful interventions increase government budget savings (Official 202).

However, it is rare that online reporting mechanisms can successfully prevent corrupt bidders from winning the contracts in time. In such circumstances, e-whistleblowing still increases the probability of detection and support investigations. The authorities may have to conduct a retroactive audit rather than a surprise check because the contract has already been awarded which takes more time and effort than the former intervention (Official 202).

Moreover, this study found that social media platforms i.e. Facebook, support corruption detection (a retroactive audit). Social media is the platform that public authorities in Thailand use to proactively gather information related to corruption in public procurement. The target is, however, not normal citizens, but the media and CSOs that try to raise public awareness about government corruption and share suspected corrupt procurement contracts on their Facebook

pages (Official 202 and Official 211). It was found that normal people do not usually report via social media. In particular, Facebook seems to be the most risky channel for whistleblowers because the users' private information is visible to the public (Official 202).

Secondly, the key benefits of e-whistleblowing which are likely to encourage whistleblowing lead to negative outcomes. *E-whistleblowing platforms increase willingness to report but the reports seem not to support further investigations.* Based on the interviews, 'convenience' and 'anonymity' increase the use of online channels in an inappropriate way and that whistleblowers do not get the most out of e-whistleblowing. Such online tip-offs, therefore, do not support investigations and do not help detect corruption. In addition, this study found that the more e-whistleblowing platforms are provided, the more overlapping investigations are likely to occur, resulting in a bombardment of reporting leads to several agencies working on the same cases at the same time (Official 205). Moreover, some whistleblowers take advantage of e-whistleblowing to discredit bidding rivals or colleagues (Official 205 and Official 206). Furthermore, the authorities revealed that many online anonymous reports were of poor quality in that there was no strong supportive evidence or elements of proof of corruption were missing. This, however, negatively affects the authorities' performance as it reduces the speed of authorities' investigations and causes many cases to be left uninvestigated each year.

Lastly, overall *e-whistleblowing does not increase potential whistleblowers' willingness to make a report which consequently does not facilitate corruption detection.* The obstacles that negatively affect the probability of corruption being detected are the limited ICT skills of potential whistleblowers (senior officials), security concerns, the poor function of online platforms, a lack of ICTs access/devices in rural areas, and a perception of the unimportance of e-reporting channels. Such problems increase the perceived cost of being a whistleblower, thus, lower the use of online platforms.

For the last case, potential whistleblowers are not normal citizens but the insiders including losing bidders, officials in procuring agencies, and trained volunteers (Official 205). More importantly, the study found that in a majority of cases, these whistleblowers prefer to use traditional platforms over the online channels and that the reports received through traditional platforms are more helpful to the investigators than online reports.

In sum, the findings are in accordance with the interventionist hypothesis. The traditional platforms are more used than the online channels and many reports sent electronically are not

helpful for further investigations and are rejected. Online platforms resulted in positive and negative outcomes, but the positive cases rarely happen. Moreover, several obstacles and limitations to the online channels negatively impact on willingness to blow the whistle online and the authorities' operations. Therefore, the use of ICTs in this anti-corruption initiative is less likely to increase the chances of corruption detection.

9.3 Generalising the Findings to Other Developing Countries

Based on the findings above, this study has made contributions to the wider literature on corruption and anti-corruption from a non-Western perspective, in particular from the Thai perspective. This study tackles the phenomenon of corruption that is widely framed by academics as a principal-agent problem and a collective action problem. The study shows that direct anti-corruption interventions inspired by principal-agent theory are ineffective in a society where collective action problems exist. This section explores how the findings might be applicable to other less developing countries.

Based on principal-agent theory which highlights transparency, monitoring, and sanctioning corrupt behaviour based on cost-benefit calculations (Klitgaard, 1988; Marquette and Peiffer, 2015), anti-corruption reforms should remove corruption opportunity or change individuals' calculations to make them perceived that the expected corrupt gain is negative. According to the theory, corruption can be prevented once anti-corruption interventions increase transparency, facilitate the principal to monitor and sanction the agents' behaviour to hold them accountable (Marquette and Peiffer, 2015). Collective action theory, however, suggests that the use of direct anti-corruption interventions in isolation cannot succeed in a society where corruption is systemic unless it is integrated with indirect anti-corruption interventions that have the capacity to ensure the presence of genuine rule of law which comprises legal punishment and strong civil society (Johnston, 2002a; Mungiu-Pippidi, 2006; 2017; Rothstein, 2011).

The key findings in this study, as shown in Figure 9-4 below, support scholars (e.g., Tirole, 1993; 1996, Mungiu-Pippidi, 2006; Rothstein, 2011; Carson and Prado, 2016) who have argued that systemic corruption should not be regarded as a principal-agent problem, but a collective action problem. The principal-agent approach suggests that effective anti-corruption means should have the capacity to influence individuals' perception that it is advantageous to oppose corruption (Klitgaard, 1988; Marquette and Peiffer, 2015). Empirical evidence in this study,

however, implies that the use of e-bidding and e-whistleblowing is unlikely to do so in a systemic corruption environment.

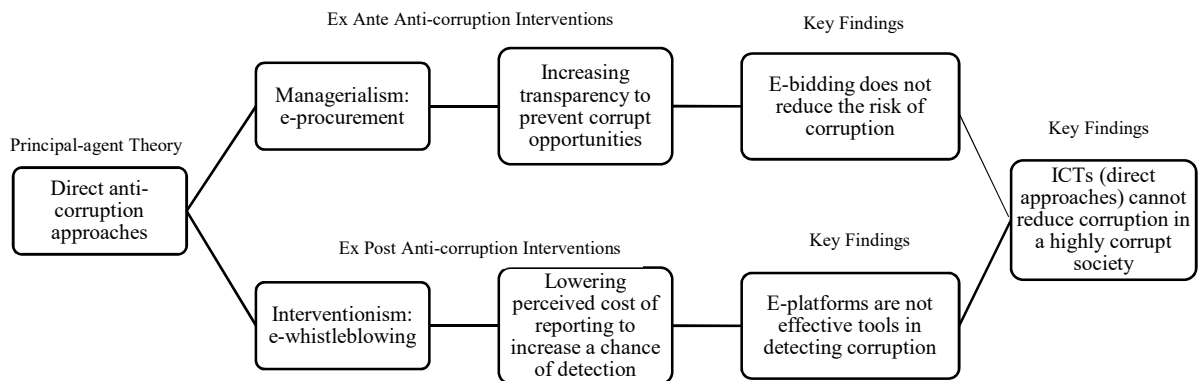


Figure 9-4: Findings of the Study

The two anti-corruption initiatives can neither remove corruption opportunity nor change people's calculations to make them believe that the expected corrupt gain is negative. E-bidding cannot prevent the risk of corruption while e-whistleblowing is less likely to increase the chance of corruption detection. However, the findings suggest several aspects of the anti-corruption tools which might be applicable in or helpful for other developing countries where corruption is widespread. In the following section, the implications of the study of e-procurement systems and e-whistleblowing platforms are highlighted.

9.3.1 E-procurement

The principal-agent approach suggests that since corrupt practices occur because there is opportunity to be corrupt, then such opportunity should be removed in order to prevent corruption. There are two forms of opportunity in this study. The first is associated with key stakeholders or parties involved in corrupt practices including rent seeking opportunity, opportunity in the principal-agent relationship, and opportunity in the patron-client relationship. The second is related to the direct anti-corruption interventions, for instance, the procurement systems or procurement process that facilitate information asymmetry or let corruption occur because the procurement process (e.g., the offline process of e-auction) has loopholes which creates the opportunity for collusion.

The use of direct anti-corruption tools (e-bidding) aims at removing the second corruption opportunity or loopholes in procurement systems to lower/prevent the risk of corruption. According to the interviews, the government believes that if the corruption opportunities are removed, then corrupt parties are unlikely to collude. In other words, this is based on the logic that once the second corruption opportunity (loopholes in the public procurement systems) is eliminated, the first opportunity (the misuse of public power for private benefits) should be less likely to occur. However, the results in this study show that this logic is invalid.

The findings in this study support limitations of managerialist approaches and collective action problems that corruption is unlikely to be prevented and direct anti-corruption mechanisms are unlikely to overcome systematic corruption. McCusker (2006: 8) points out that managerialist approaches may overlook market forces which could increase the amount of corrupt gain and sustain corrupt practices. When preventive tools are in place, this could lower the number of corrupt politicians/public officials (McCusker, 2006: 8). However, there might be some officials who take risk and ask for a larger amount of bribe (McCusker, 2006: 8). Based on economic theory, when the price increases, it normally attracts more suppliers to enter the market (Gillespie, 2013).

This is in accordance with a boomerang effect, in which transparency, monitoring, and sanctioning may be the key to success of direct anti-corruption initiatives in a country where corruption is an isolated phenomenon, but in other countries may cause a strong opposite effect (Marquette and Peiffer, 2015). In a country where corruption is frequent, some public officials may think that it is worth engaging in corruption because of the increasing amount of corrupt rewards.

For example, the interviewees in this study identified collusion between suppliers and procurement officers and system hacking. They believed that the effect of information leakage in e-bidding could be getting worse than in e-auction. The officials of the procuring agencies are blocked from viewing the information during the process of e-bidding and the files submitted are sent directly to and kept in the the database of the Comptroller General's Department (CGD). If corrupt firms would like to have bidding information to gain advantage over their competitors, they would get in contact with hackers instead of the procuring agencies (Official 129).

The problems arise as all information of all public agencies in the country is controlled by one agency or the CGD. This means that by paying money to the hackers, corrupt firms can receive

all information. For e-auction (or the other offline procurement systems), if corrupt firms pay the officials in agency A, they would receive only the bidding information of agency A, not the other agencies (Official 129). According to this assumption, hackers could ask for a larger amount of money because they can provide the bidding information of all public procuring agencies. In a society where corruption is rife, this possibly attracts more corrupt people attempting to penetrate the system and thus sustains corrupt practices in public procurement.

This also supports another key limitation of the preventive approaches that closing the current loopholes may lead to new types of corrupt practices (Larmour and Wolanin, 2013: xix). The use of new direct anti-corruption approaches is likely to increase the skills of corrupt persons to find a way to overcome it. Similarly, Diamond (2007: 119) points out that endemic corruption in a highly corrupt society cannot be solved by a technical mechanism because it is “the way that the system works, and it is deeply embedded in the norms and expectations of political and social life.”

In this study, public procurement reforms (replacing e-auction with e-bidding) may have fostered new forms of corruption. The results of e-bidding in some contracts, e.g., tenders submitted at the same time and the same prices proposed, made some interviewees strongly believed that there is collusion in e-bidding. This implies that new corruption opportunities exist in e-bidding. Some interviewees in this study stated that, according to their long experience in public procurement, there is no system that entirely prevents corruption in the country (Official 120 and Official 121). As shown in this study, regardless of procurement methods, competition in terms of the participation of newcomers can still be limited and collusion is still impossible to prevent in e-procurement even where transparency exists.

Official 121 remarked on the fact that corruption is hard to eliminate despite the use of more advanced technology which well explains why direct anti-corruption interventions based on principal-agent or risk-based approaches do not work when used in a systemic corruption environment:

“It’s like how the police arrest criminals. The criminals find a loophole that let them walk free while the police have a responsibility to apprehend the criminals or later close such a loophole. If the criminals received a request to commit a crime and did it, but were caught, then if they later are given a second chance, they, of course, would take different approaches.” (Official 121)

The interview supports Mungiu-Pippidi's (2006) research that instead of breaking the vicious circle or changing the accepted unfair rules, people in a society where corruption is rife keep struggling to be privileged over others.

Additionally, opportunity for corruption can occur in the patron-client relationships and such relationships normally can be found in an unequal, highly stratified, and hierarchical society (Vichit-Vadakan, 2011: 85). These relationships are considered to be related to rationalisation in the fraud theory and the low moral cost and satisfaction from not being corrupt in Klitgaard's formula as presented in Chapter 2. In more detail, the patron-client relationships contribute to a lack of transparency and corrupt practices (Vichit-Vadakan, 2011) and are regarded as a collective action problem. Politicians/public officials or the patron are in the position to provide help to their supporters in several forms such as jobs, allowances, or special contracts (Etzioni-Halevy, 2002). This helps create obligations because the clients, who are private firms, are expected to support the patron in return (Etzioni-Halevy, 2002).

In this study, the support made by the clients includes financial benefits or kickbacks which are given in exchange for the help provided by the patron to win the government procurement contracts. For instance, it was revealed that private firms need to pay corrupt public officials and politicians 5-15 percent on average of the Thai government contract value and 10-30 percent if it is a mega project in order to secure government contracts (Vichit-Vadakan, 2011; Khaosod, 2018).

Based on the information above, the circumstances are explained by collective action theory that in a society where corruption is perceived as normal, people seem to rationally opt to be corrupt as they perceive that other people are also corrupt (Tirole, 1993; Rothstein, 2011). Thus, this reduces the effectiveness of principal-agent based anti-corruption mechanisms. On the one hand, public officials take advantage of their public powers to act as the patron and help the corrupt firms to win the contracts. On the other hand, the firms act as the clients who have obligations to repay the help. This reflects a corrupt norm in which without paying bribes, a firm is unlikely to win a government contract. Hence, based on the collective action approaches, the findings in this study suggest that anti-corruption interventions should also focus on the indirect approach or changing informal rules and social norms because people are unlikely to change as long as they believe that others still remain unchanged (Carson and Prado, 2016).

Drawing on the evidence across the findings of the e-procurement chapters, even though the findings in this study show that online procurement systems are not a silver bullet which can entirely solve the problem of collusion and eliminate corruption in public procurement, this does not mean that the online systems are entirely ineffective in the fight against corruption. The results suggest that some government projects would be more effective when procuring through e-bidding while some projects would not.

For instance, the qualitative findings indicate that when procuring standardised products or services in which there are a number of potential bidders available in the markets, e-bidding is more likely to increase competition and thus reduces the risk of corruption. On the other hand, e-bidding does not encourage competition at all when procuring an exclusive product or service where only a limited number of suppliers in the market can supply. In such a context, it does nothing to reduce the risk of corruption.

Moreover, publishing the prices proposed by all bidding firms online could prevent corruption from occurring and increase the chance of corruption detection. The interviewees in this study stated that there were several cases where bidders proposed exactly the same price and more importantly the incidence is prone to collusion (Official 125). However, the prices proposed by each bidding participant (except the winner) for e-bidding contracts are not available online. This means that the public can view only the price proposed by the winner while the procuring officers know all the proposing prices of the bidder participants. Thus, if all information is published, it will increase the risk of corrupt practices being detected and facilitate the public playing an active watchdog role in monitoring suspected corrupt contracts. This supports the findings of Chvalkovská and Skuhrovec (2010) about the use of e-procurement information systems as a means to measure transparency in public procurement in the Czech Republic as mentioned in Chapter 4. As they suggested, e-procurement systems would be an efficient anti-corruption mechanisms if the systems facilitate access and utilisation of public information.

9.3.2 E-whistleblowing

The study of e-whistleblowing provides empirical evidence that supports collective action theory. The findings suggest that the use of this principal-agent based anti-corruption mechanism is unlikely to facilitate the ability of principals in a particularistic society to sanction their agents' behaviour to hold them accountable.

Individuals' perceived cost of blowing the whistle is associated with the risk of retaliation. In general, the findings in this study support the theory that potential whistleblowers' perceived cost in revealing corrupt practices in public procurement is affected by the risk of reprisals. According to the interviews, Thailand is a stratified society and public officials are aware of the risk of retaliation if they report misconduct done by a high-ranking person (Official 202). The findings supports (i) the power theory (Near et al., 1993: 384) and (ii) the theory of upward deviance (Miceli et al., 1999).

The findings are in line with findings of previous studies that public officials seem not to blow the whistle if many people and powerful wrongdoers are involved in the wrongdoing (systemic wrongdoing) (Wortley et al., 2008). Corruption in public procurement is also systemic with corrupt high-level public officials and politicians cooperating with bidding firms. The findings in this study show that public officials normally blow the whistle via traditional platforms to avoid being tracked online by their head of department (Official 202). This implies that the use of ICTs in detecting corruption does not lower but instead increases public officials' perceived cost of being a whistleblower.

More importantly, the findings on e-whistleblowing support the notion that the success of interventionist strategies, especially in a particularistic society where corruption is widespread, depends on the cooperation of key stakeholders. The findings imply that the anti-corruption approach requires potential whistleblowers to keep an eye on other people's activities but the limitation is that there is frequent bias by potential whistleblowers in reporting and considerable uncertainty in detection (Larmour and Wolanin, 2013: xvi). For instance, the use of e-whistleblowing platforms by some whistleblowers is aimed at discrediting colleagues or hindering their business competitors instead of facilitating corruption detection.

However, some of the findings in this study might be applicable to other highly corrupt countries. This study found that interventionist approaches, in fact, not only detect corrupt practices that already occurred but also deter corruption in public procurement. The evidence in this study confirms that e-platforms can prevent corruption from occurring i.e. a tip-off sent to the authorities which allows them to conduct a surprise check before the contracts are awarded. Such actions prevent corrupt officials misusing their power to help corrupt firms win the government contracts. Even though this does not guarantee freedom of corruption in the second bidding phase, re-auction increases procurement budget savings and saves the cost of a retroactive audit.

Given that the government is improving and providing more e-government services to adapt to rapidly changing ICT trends and responding to citizens' changing needs in ICT, adding new online reporting channels seems to help increase the probability of corruption detection. However, this study found that while several anti-corruption departments are responding to the government's policy by developing new online platforms, the authorities who have direct experience in managing and handling the whistleblowing cases pointed out that the currently used online channels, i.e. official websites, are already inclusive enough (Official 202 and Official 209).

Based on the findings in this study, providing more online platforms might not be worth the effort. Firstly, developing new online platforms such as mobile apps requires a budget (Official 201 and Official 209). However, unlike the other popular social media apps, mobile applications developed purposely for reporting corruption seem not to be a part or a necessity of one's life (Official 211). Overall e-platforms are not only less used than traditional platforms, but the online reports are also less likely to benefit the anti-corruption agencies in detecting corruption in public procurement.

Secondly, adding more online reporting platforms might increase unnecessary parallel investigations and the number of cases left uninvestigated each year. Returning briefly to the statistics of the NACC on the quantity of cases left uninvestigated as presented in Chapter 8 (Figure 8-3), approximately 30 percent, 47 percent, and 54 percent of total reports submitted to the agency in 2014, 2015 and 2016, respectively, are left for the next year. Based on the statistics and the fact that some whistleblowers in the country use a bombardment reporting method, adding additional digital platforms such as official mobile applications might not be helpful unless public authorities can handle the reports in a fair and timely manner and the cooperation among anti-corruption agencies or the leveraging of the use of online information hub are practical.

The findings suggest that the poor functioning of e-reporting platforms causes whistleblowers to use traditional platforms instead. Hence, there should be an effective and workable platform that supports potential whistleblowers who might prefer to use online channels. For instance, the interviewees mentioned that most whistleblowers in public procurement are losing bidders. Once they realise that a procuring agency has unfairly awarded the contract to a pre-selected firm, these people normally meet the authorities face-to-face and send a letter of complaint. In some cases whistleblowers have strong and abundant evidence, but online platforms are not

designed to receive a lot of information (Official 211). Sometimes bringing in evidence directly to the authority office is more convenient than uploading a number of documents via the website because such online platforms are not designed to support large files uploading (Official 208).

Therefore, anti-corruption agencies should ensure that they improve the functioning of the online platform. Even though official websites are not currently the main channels for potential whistleblowers, the availability of user-friendly platforms that create a positive user experience could increase the amount of whistleblowing. Even though online tip-offs which eventually can prevent corruption are rare, such tip-offs may save a large amount of public money and may be worth the effort.

In conclusion, the analysis of e-procurement systems and e-whistleblowing platforms shows that corruption is a universal phenomenon, but it is perceived differently across countries. Formal rules, regulations, and law are not the only factors that define what are corrupt practices. In addition, culture, informal norms, and other aspects of the context of a particular country help define corruption. The key findings support the notion that a particular anti-corruption intervention is less likely to have the same effect everywhere. The success of anti-corruption mechanisms depends on the context, not the theory (Marquette and Peiffer, 2015). The findings correspond with the notion from collective action theory that the use of direct anti-corruption initiatives in a less developing country in isolation is unlikely to reach a critical tipping point, thus, may result in people turning back to poor collective behaviours.

However, successful implementation of direct anti-corruption strategies can be achieved if there is a cooperation between key stakeholders in a society. Corruption is less likely to occur within a particular type of institution, segment, or group of people (Transparency International, 2011). Rather, corruption is systemic by nature and a systematic and holistic anti-corruption approach that involves multiple stakeholders is required in order to successfully eradicate the problem (Transparency International, 2011). Without the will of the principals (i.e. the government and civil society) to monitor and sanction the agents (politicians/public officials), it is less likely that a society where corruption is rife, will successfully transplant the success of a direct anti-corruption intervention used in countries where corrupt practices are regarded as individual violations of the norm of integrity.

Therefore, there should be enough political will among governments, which represent the supply side, and also civil society, which represents the demand side, to ensure that governments show

greater accountability, transparency, and effort in the fight against corruption (Transparency International, 2011). It is society which requests and forces governments to increase accountability and transparency, and step up efforts to fight corruption. On the one hand, there must be a tool that facilitates civil society's monitoring and sanctioning. On the other hand, civil society must also be active in fighting corruption. The findings in this study imply that strengthening institutional pre-conditions or indirect anti-corruption approaches (e.g., political will and strong civil society) seems to be the first priority in a less developing country where corruption is rife.

9.4 Limitations

9.4.1 E-procurement

The study of e-procurement systems has three main limitations: (i) the perspectives of key stakeholders, (ii) the limitations affecting the quantitative analysis, and (iii) the limitations pertaining to the quantitative components. The limitations have influenced the research design and data analysis.

Firstly, the qualitative analysis in this study is based on only the perspectives of public officials in the procuring agencies in shedding light on the effectiveness of e-bidding in the fight against corruption in public procurement. This means that the perspectives of bidders who use e-bidding systems and have direct experience in e-bidding are not included in this study.

Secondly, two limitations affect the quantitative analysis: the limitation of the CRI and the limitations of public procurement data. Firstly, the CRI can measure the risk of corruption during the bidding phase. Based on this measurement, the corrupt outcome indicators (single received bid, single valid bid, and winners' market shares) allowed this study to examine the risk of corruption only during bid submission stage, bid evaluation stage, and overall. However, corruption could also occur in other phases of e-procurement such as the pre-bidding phase and post-award phase (OECD, 2016: 9).

In addition, not all three CRI indicators can be used to compare the effectiveness of e-bidding with e-auction. The procurement regulations allow single received bids and single valid bids during e-bidding while, in general, e-auction requires at least two bidders. E-bidding thus should have more single bid contracts and single valid bid contracts than e-auction. Consequently, this study also looked at winner's market share.

The available information available in the public procurement database is another limitation of this study. Firstly, there is no ready-to-use data available in Thailand. Thus the data on public procurement contracts had to be manually extracted which took time. Therefore, the quantitative data used in the analyses covered only the first year of the e-bidding operation. The findings suggest that e-bidding may not show any positive effects immediately but when the users can adapt to the new system, then e-bidding falls into place. In contrast, some interviewees suggested that the risk of corruption in e-bidding may possibly increase in the future e.g., after the first year of its operation. To be specific, corrupt techniques to avoid detection or to overcome the new online procurement system may be not found now but later.

Furthermore, there are limitations pertaining to the quantitative components or the three corrupt outcome indicators in the CRI. Firstly, more than one bid submitted does not necessarily mean that the contracts are free from corruption. In the case of collusion, bidders can propose fake bids to create the illusion of a competitive bidding process where the pre-selected firm proposes the winning bid to win a contract (OECD, 2009a: 1).

Secondly, where there is more than one valid bid or more than one bid passing the evaluation, the cases do not necessarily mean that there is no corruption. The pre-selected firms proposing a lower price than the fake bids would guarantee a win without additional corrupt methods e.g., unfair assessment which would only increase the risk of being detected. As was pointed out by the interviewee (Official 125), there were cases where bidders proposed exactly the same price while one bidding firm proposed a lower price and won the contract. There is no clear evidence of corruption but the cases are, however, prone to collusion. Therefore, the decreasing number of single valid bid contracts in e-bidding over time might not mean that the risk of corruption is reduced.

Moreover, the regression results of winners' market share could be affected by common ownership of different bidding firms. The interviewees pointed out that the owner of some bidding firms in fact are the same person (Official 119). Therefore, if many winning firms are not independent, a lower average winner's share within the procuring agency's contracts may not mean that the competition is increasing.

9.4.2 E-whistleblowing

The study of e-whistleblowing platforms has two main limitations: (i) perspectives of key stakeholders and (ii) limitations of statistical data to support the qualitative findings. The limitations have influenced the data analysis.

Firstly, the findings in this study are based on only the perspectives of public authorities, the key stakeholder who represents the supply side, to gain insight into the use of e-whistleblowing platforms. This means that the perspectives of the key stakeholders on the demand side, e.g., (potential) whistleblowers, CSOs, and the media, are not included in this study.

Secondly, there was insufficient empirical evidence to validate several aspects of the interview findings in this study. Each public anti-corruption agency in Thailand has its own data collection method. For instance, most public agencies do not attach great importance to the statistics about whistleblowing platforms. Thus, I was informed that some requested data has not been recorded e.g., the statistics on the cases reported via different platforms and some requested data are mixed up or that the available statistics include all types of corruption rather than just the cases concerning corruption in public procurement.

More importantly, it should be noted that the statistics do not reflect true corruption rates in the country. According to Larmour and Wolanin (2013: xvi), one of the key limitations of the interventionist approaches is target selection bias which leads to uncertain detection. On the one hand, people may deliberately make a false allegation as found in this study. On the other hand, people may perceive corrupt practices but decide to stay silent. Thus, it is possible that many corrupt practices would remain unreported.

9.5 Future Directions

9.5.1 E-procurement

According to the limitations of this study, the following areas are suggested for future research. Firstly, as this study focuses on the perspectives of public officials, a new study could emphasise the perspectives of bidders. There could be problems in the use of e-bidding which does not facilitate bidders' participation and are not reported to the government authorities. For instance, interviews with (losing) bidders could be conducted to find out the tactics used by their

competitors or corrupt bidding firms that prevent them from winning the contracts. The study can signal to the government authorities and the developers of e-procurement systems the loopholes of e-bidding which are prone to corruption. The findings, therefore, can be used to strengthen the effectiveness of e-procurement systems in preventing corrupt practices.

Secondly, as e-bidding may not show the true effects immediately (e.g., within the first year of its operation), it would be helpful if future research explore the effectiveness of e-bidding by using more quantitative data. Including data from the later years of e-bidding and more public agencies might better show more the system's positive or negative effects in reducing the risk of corruption in public procurement.

In addition, the e-procurement process and the rules and regulations are constantly changing. Thus, further research is needed to track the development of e-procurement systems and the impact this may have on anti-corruption strategies.

9.5.2 E-whistleblowing

According to the limitations mentioned above, the following areas might be focused upon in future research.

Firstly, to gain different perspectives on the use of online reporting channels, a new study could be designed to involve key stakeholders who represent the demand side in the fight against corruption. For instance, interviews with (potential) whistleblowers such as bidders, anti-corruption watchdogs, or the media could be conducted to find out the extent to which e-whistleblowing platforms influence their decision to blow or not blow the whistle or why e-whistleblowing platforms, which can overcome the barriers of several traditional platforms, are less likely to reduce the perceived costs of reporting. The study can verify the perspectives of authorities in this study. In addition, this in turn helps to illuminate areas where further development of reporting platforms is required to facilitate whistleblowing.

Moreover, the use of electronic communication in detecting corruption is constantly changing. The development of modern technology has rapidly removed the barriers associated with the traditional and the current online platforms. For instance, at the time of conducting this study (July - August 2017), e-whistleblowing was in its infancy in Thailand and several anti-corruption agencies had plans to improve and launch their own online platforms to better serve potential whistleblowers and younger generations. As digital technology has had an impressive

influence on the way we communicate, improved or new platforms may have different impacts on potential whistleblowers' intention to blow the whistle and corruption detection. Therefore, further investigations in the future could be carried out to explore the effectiveness of the new added online whistleblowing platforms.

In addition, this study does not address three key factors that facilitate corruption according to the anti-corruption theories mentioned in Chapter 2 i.e. moral cost, motive, and impunity. Further research could be focused on the use of digital media in other anti-corruption approaches such as organisational integrity to tackle social norm issues or collective action problems. For instance, how ICTs and social media platforms can be used to build or spread new social norms in a wider society to create a culture of zero tolerance against corruption, how digital social norm enforcements affect public officials attitudes towards corruption in public procurement, and how social media firestorms can cause government reform or cause governments to take steps to strengthen accountability in a highly corrupt society.

Appendices

Appendix 1: List of 160 Pilot Central Government Agencies

| List of 160 Pilot Central Government Agencies | Starting Date of Using E-bidding |
|--|----------------------------------|
| 1) Ministry of Finance <ol style="list-style-type: none"> Office of the Permanent Secretary Fiscal Policy Office The Treasury Department The Comptroller General's Department The Customs Department The Excise Department The Revenue Department The State Enterprise Policy Office Public Debt Management Office | 16 February 2015 |
| 2) Ministry of Public Health <ol style="list-style-type: none"> Lerdsin Hospital Vajira Hospital Central Chest Institute of Thailand Office of Permanent Secretary Department of Medical Services Department of Disease Control Department for Development of Thai Traditional and Alternative Medicine Department of Medical Sciences Department of Health Service Support Department of Mental Health Department of Health Food and Drug Administration | 1 May 2015 |
| 3) Ministry of Foreign Affairs <ol style="list-style-type: none"> Office of the Permanent Secretary Department of Consular Affairs Department of Protocol Department of European Affairs Thailand International Cooperation Agency Department of International Economic Affairs Department of Information Department of International Organizations Department of ASEAN Affairs Department of East Asian Affairs Department of South Asian, Middle East and African Affairs Department of Treaties and Legal Affairs Department of American and South Pacific Affairs | 16 April 2015 |
| 4) Ministry of Tourism and Sports <ol style="list-style-type: none"> Office of the Permanent Secretary Institute of Physical Education Department of Tourism Department of Physical Education | |
| 5) Ministry of Natural Resources and Environment <ol style="list-style-type: none"> Office of the Permanent Secretary | |

| List of 160 Pilot Central Government Agencies | Starting Date of Using E-bidding |
|---|----------------------------------|
| <ol style="list-style-type: none"> 2. Pollution Control Department 3. Department of Marine and Coastal Resources 4. Royal Forest Department 5. Department of Mineral Resources 6. Department of Water Resources 7. Department of Groundwater Resources 8. Department of Environment Quality Promotion 9. National Park, Wildlife and Plant Conservation Department 10. Office of Natural Resources and Environmental Policy and Planning | |
| 6) Ministry of Information and Communication Technology <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. The Meteorological Department 3. National Statistical Office | |
| 7) Ministry of Energy <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Mineral Fuels 3. Department of Energy Business 4. Department of Alternative Energy Development and Efficiency 5. Energy Policy and Planning Office | |
| 8) Ministry of Social Development and Human Security <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Social Development and Welfare 3. Office of Women's Affairs and Family Development 4. Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups | |
| 9) Ministry of Commerce <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Internal Trade 3. Department of Foreign Trade 4. Department of Trade Negotiations 5. Department of Intellectual Property 6. Department of Business Development 7. Department of International Trade Promotion | |
| 10) Ministry of Justice <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Rights and Liberties Protection Department 3. Legal Execution Department 4. Department of Corrections 5. Department of Special Investigation 6. Central Institute of Forensic Science 7. Office of Justice Affairs 8. Department of Probation 9. Department of Juvenile Observation and Protection 10. Office of the Narcotics Control Board | |
| 11) Ministry of Labour <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Social Security Office 3. Department of Employment 4. Department of Skill Development 5. Department of Labour Protection and Welfare | |

| List of 160 Pilot Central Government Agencies | Starting Date of Using E-bidding |
|--|----------------------------------|
| 12) Ministry of Culture <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Religious Affairs Department 3. The Fine Arts Department 4. Department of Cultural Promotion 5. Office of Contemporary Art and Culture 6. Buditpatanasilpa Institute, Ministry of Culture | |
| 13) Ministry of Science and Technology <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Science Service 3. Office of Atoms for Peace | |
| 14) Ministry of Industry <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Industrial Works 3. Department of Industrial Promotion 4. Department of Primary Industries and Mines 5. Office of the Cane and Sugar Board 6. Thai Industrial Standards Institute 7. Office of Industrial Economics | |
| 15) Office of the Prime Minister <ol style="list-style-type: none"> 1. Office of the Permanent Secretary, Prime Minister Office 2. The Government Public Relations Department 3. Office of the Consumer Protection Board 4. The Secretariat of the Cabinet 5. The Secretariat of the Prime Minister 6. Office of the National Security Council 7. National Intelligence Agency 8. The Bureau of the Budget 9. Office of the Council of State 10. Office of the Civil Service Commission 11. Office of the National Economic and Social Development Board (NESDB) 12. Office of the Public Sector Development Commission 13. Thailand Board of Investment | |
| 16) Ministry of Agriculture and Cooperatives <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Rice Department 3. Royal Irrigation Department 4. Cooperative Auditing Department 5. Department of Fisheries 6. Department of Livestock Development 7. Land Development Department 8. Department of Agriculture 9. Department of Agricultural Extension 10. The Cooperative Promotion Department 11. Agricultural Land Reform Office 12. National Bureau of Agricultural Commodity and Food Standards 13. Office of Agricultural Economics 14. Department of Royal Rainmaking and Agricultural Aviation 15. Department of Sericulture | |

| List of 160 Pilot Central Government Agencies | Starting Date of Using E-bidding |
|---|----------------------------------|
| 17) Ministry of Defence <ol style="list-style-type: none"> 1. Office of the Permanent Secretary for Defence 2. Royal Aide-de-Camp Department 3. Royal Thai Armed Forces Headquarters 4. Royal Thai Army 5. Royal Thai Navy Headquarters 6. Royal Thai Air Force | |
| 18) Ministry of Transport <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. The Department of Land Transport 3. The Department of Highways 4. Department of Rural Roads 5. Office of Transport and Traffic Policy and Planning 6. The Department of Civil Aviation 7. Marine Department | |
| 19) Ministry of Interior <ol style="list-style-type: none"> 1. Office of the Permanent Secretary 2. Department of Provincial Administration 3. The Community Development Department 4. Department of Lands 5. Department of Disaster Prevention and Mitigation 6. Department of Public Works and Town & Country Planning 7. Department of Local Administration | 1 May 2015 |
| 20) Ministry of Education <ol style="list-style-type: none"> 1. Office of the Permanent Secretary of Education 2. Office of the Education Council 3. Office of the Basic Education Commission 4. Office of the Vocational Education Commission 5. Office of the Higher Education Commission | |
| 21) Independent Public Agencies <ol style="list-style-type: none"> 1. Office of His Majesty's Principal Private Secretary 2. Bureau of the Royal Household 3. National Office of Buddhism 4. Office of the Royal Development Projects Board 5. The office of the National Research Council of Thailand (NRCT) 6. Office of the Royal Society 7. Anti-Money Laundering Office 8. Royal Thai Police | |

Table A-1: List of 160 Pilot Central Government Agencies (under 21 Government Ministries)

Appendix 2: Descriptive Statistics of E-auction and E-bidding

| | E-auction (16 Feb 14 – 15 Feb 15) | E-bidding (16 Feb 15 – 15 Feb 16) |
|--|---|---|
| 1) Total number of issuers (Government Ministries) | 21 | 21 |
| 2) Total number of contracts awarded | 2,378 | 4,360 |
| 3) Total number of winners | 2,566 | 4,666 |
| 4) Total value of awarded contracts (million THB) | 70,070.01 (approx. GBP 1,557 million) | 49,870.57 (approx. GBP 1,108 million) |

Table A-2: Descriptive Statistics I: E-auction Vs E-bidding

| E-bidding | Period I (May 15-Aug 15) | Period II (Sept 15 – Dec 15) | Period III (Jan 16-Dec 16) |
|--|--------------------------------------|--|--|
| 1) Total number of issuers (Government Ministries) | 21 | 21 | 21 |
| 2) Total number of contracts awarded | 912 | 2,462 | 926 |
| 3) Total number of winners | 968 | 2,631 | 1,003 |
| 4) Total value of awarded contracts (million THB) | 4,379.91 (approx. GBP 97 million) | 16,193.76 (approx. GBP 360 million) | 25,677.47 (approx. GBP 571 million) |

Table A-3: Descriptive Statistics II: E-bidding in Period I, II, and III

| Corrupt Outcome I - Single Received Bid | Total | | E-auction | | E-bidding | |
|--|--------------|--------|------------------|--------|------------------|--------|
| | N | % | N | % | N | % |
| More than one bid received | 5,161 | 77.28 | 2,175 | 91.46 | 2,986 | 68.49 |
| One bid received | 1,517 | 22.72 | 203 | 8.54 | 1,314 | 30.14 |
| Missing data | - | - | - | - | 60 | 1.38 |
| Total contracts | 6,738 | 100.00 | 2,378 | 100.00 | 4,360 | 100.00 |

Table A-4: Distribution of Corrupt Outcome I - Single Received Bid

| Corrupt Outcome II - Single Valid Bid* | Total | | E-auction | | E-bidding | |
|--|--------------|--------|------------------|--------|------------------|--------|
| | N | % | N | % | N | % |
| More than one bid received | 4,584 | 88.84 | 2,101 | 96.60 | 2,483 | 83.18 |
| One bid received | 576 | 11.16 | 74 | 3.40 | 502 | 16.82 |
| Missing data | - | - | - | - | - | - |
| Total contracts | 5,160 | 100.00 | 2,175 | 100.00 | 2,985 | 100.00 |
| * Only contracts with at least two bids proposed | | | | | | |

Table A-5: Distribution of Corrupt Outcome II - Single Valid Bid

| Corrupt Outcome III - Winner's Share within the Issuer's Contracts | N* | Mean | Std. Dev | Min | Max |
|---|-----------|-------------|-----------------|------------|------------|
| Log contract value | 7,231 | 0.0569 | 0.1211 | 0 | 1 |
| Missing data | 1 | - | - | - | - |
| *The number of observations is the number of total winners: 7,232 winners | | | | | |

Table A-6: Distribution of Corrupt Outcome III - Winner's Share within the Issuer's Contracts

| Corrupt Input I - Procurement Type | N | % |
|---|--------------|---------------|
| E-auction | 2,378 | 35.29 |
| E-bidding | 4,360 | 64.71 |
| Total contracts | 6,738 | 100.00 |

Table A-7: Distribution of Corrupt Input I - Procurement Type

| Corrupt Input II - Time Periods of E-bidding Operation (for Single Received Bid and Single Valid Bid Outcomes) | Total | |
|---|--------------|---------------|
| | N | % |
| E-bidding contracts signed between May 2015 and August 2015 – period I | 912 | 20.92 |
| E-bidding contracts signed between September 2015 and December 2015 – period II | 2,462 | 56.47 |
| E-bidding contracts signed between January 2016 and December 2016 – period III | 926 | 21.24 |
| Missing data | 60 | 1.38 |
| Total contracts | 4,360 | 100.00 |

Table A-8: Distribution of Corrupt Input II - Time Periods of E-bidding Operation (Single Received Bid and Single Valid Bid Outcomes)

| Corrupt Input III - Time Periods of E-bidding Operation (for Winner's Share within the Issuer's Contracts Outcome) | Total | |
|---|--------------|---------------|
| | N | % |
| Number of winners winning e-bidding contracts signed between May 2015 and August 2015 – period I | 968 | 20.75 |
| Number of winners winning e-bidding contracts signed between September 2015 and December 2015 – period II | 2,631 | 56.40 |
| Number of winners winning e-bidding contracts signed between January 2016 and December 2016 – period III | 1,003 | 21.50 |
| Missing data | 63 | 1.35 |
| Total number of winners | 4,665 | 100.00 |

Table A-9: Distribution of Corrupt Input III - Time Periods of E-bidding Operation (Winner's Share within the Issuer's Contracts Outcome)

| Control Variable I – Ministry | N | % |
|---|--------------|---------------|
| 1. Ministry of Finance | 360 | 5.34 |
| 2. Ministry of Public Health | 508 | 7.54 |
| 3. Ministry of Foreign Affairs | 19 | 0.28 |
| 4. Ministry of Tourism and Sports | 82 | 1.22 |
| 5. Ministry of Natural Resources and Environment | 405 | 6.01 |
| 6. Ministry of Information and Communication Technology | 52 | 0.77 |
| 7. Ministry of Energy | 135 | 2.00 |
| 8. Ministry of Social Development and Human Security | 122 | 1.81 |
| 9. Ministry of Commerce | 125 | 1.86 |
| 10. Ministry of Justice | 242 | 3.59 |
| 11. Ministry of Labour | 105 | 1.56 |
| 12. Ministry of Culture | 89 | 1.32 |
| 13. Ministry of Science and Technology | 71 | 1.05 |
| 14. Ministry of Industry | 139 | 2.06 |
| 15. Office of the Prime Minister | 123 | 1.83 |
| 16. Ministry of Agriculture and Cooperatives | 568 | 8.43 |
| 17. Ministry of Defence | 1,465 | 21.74 |
| 18. Ministry of Transport | 1,174 | 17.42 |
| 19. Ministry of Interior | 530 | 7.87 |
| 20. Ministry of Education | 110 | 1.63 |
| 21. Independent Public Agencies | 314 | 4.66 |
| Total contracts | 6,738 | 100.00 |

Table A-10: Distribution of Control Variable I - Procuring Agencies (Ministry)

| Control Variable II - Contract Value | N* | Mean | Std. Dev | Min | Max |
|--|-----------|-------------|-----------------|------------|------------|
| Log contract value | 7,231 | 14.9782 | 1.7737 | 6.1079 | 21.6745 |
| Missing data | 1 | - | - | - | - |
| *The number of observations is based on the number of total winners of 7,232 | | | | | |

Table A-11: Descriptive Statistics of Control Variable II – the Log Contract Value

Appendix 3: Information Plain Language Statement (E-procurement)



College of Social
Sciences

Participant Information Sheet (e-bidding system)

Title of the Study: The roles of digital media in developing and strengthening public procurement in Thailand

Researcher: Phannarai Sirisophonphong

Email: p.sirisophonphong.1@research.gla.ac.uk

Supervisors: Dr Neil Munro and Dr Philip Habel

Email: Neil.Munro@glasgow.ac.uk

Philip.Habel@glasgow.ac.uk

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of the study?

The purpose of this research is to explore the effectiveness of the use of digital media by key stakeholders in society to strengthen public procurement in Thailand. It is expected that the study could identify key benefits from and challenges confronting the implementation of electronic procurement (e-bidding) for further development of online procurement systems. This study is being conducted to fulfil the thesis requirement for a PhD in Politics at the University of Glasgow.

Why has an official of the Department been invited to participate?

Part of the research involves interviewing procurement officials. To gain different perspectives, the targets are public officials in various Thai government departments who have knowledge and experience in purchasing activities through electronic procurement platforms. For this reason, you have been invited to take part in order to share experience and opinions that could be beneficial for the development of public procurement in the future.

Does the official of the Department have to take part?

It is up to you whether or not to take part. Your decision will be treated respectfully and confidentially. Please inform the researcher of your decision at p.sirisophonphong.1@research.gla.ac.uk.

What will happen to the participant if he/she takes part?

You would be asked to participate in a face-to-face interview of about 30-45 minutes. You will be interviewed for a time and place that is most convenient to you. The interview will mainly cover questions related to the following issues:

- functions of online procurement systems
- public procurement rules and regulations
- effectiveness and benefits of e-bidding
- challenges, risk, or problems found during the use of e-bidding

With your permission, the researcher will audiotape during the interview. The recording is to accurately record the information you provided and will be used for later analysis. If you choose not to be audiotaped, the researcher will take notes instead. If you agree to being audiotaped but feel uncomfortable at any time during the interview, the researcher can turn off the recorder at your request. You are free to withdraw from the interview at any time and without giving a reason. The interview will be immediately ceased and all records will be immediately destroyed.

How will confidentiality be maintained and the participant's privacy be protected?

Confidentiality will be respected subject to legal constraints and professional guidelines. The analysis of the interview will be written up in a thesis for the researcher's degree. Your name and other identifying information will remain confidential and will not be included in the thesis

or in any published outputs. A code will be attached to the data so it remains totally anonymous. Your personal data will be deleted/destroyed after completion of the project.

Electronic databases and audio recordings will be password protected, with its own unique password and access to the password restricted to authorised personnel only i.e. the researcher, supervisors, and examiners. The data may be reused by the researcher or other genuine researchers in future academic research only if they agree to preserve the confidentiality of the information. The data will be kept securely for 10 years after completion of the project and will then be destroyed securely. Results will be made available to the researcher's peers and/or colleagues as thesis, journal articles, or written summary of results if requested.

What are the possible risk of taking part?

There is minimal risk for participating in this study. If answering some of the questions makes you uncomfortable, you can choose not to answer and you are free to withdraw from the study at any time. You will retain the right to withdraw consent to record interview at any time at which point the interview will be immediately ceased and all records will be immediately destroyed.

How will the participant benefit from the study?

There is no direct benefit to you. However, it is expected that the information obtained from the interview will help shed light on unclear issues of the e-procurement systems. Such information will be part of an analysis to identify loopholes and provide recommendations to further develop, strengthen, and promote the implementation of digital media in public procurement. This might benefit the Department in the future.

Results will be made available to you as written summary if requested. If you provide personal data or contact details, it will be kept as electronic files and password protected, with access to the password restricted to the researcher only. The data will be deleted once the results have been sent to you.

Who has reviewed the study?

The research has been approved by the researcher's supervisors, Dr Neil Munro and Dr Philip Habel, and has been subject to review by the College Research Ethics Committee, University of Glasgow.

Contact for Further Information

For further information or to make a complaint, please contact the College of Social Sciences Ethics Officer, Dr Muir Houston at email: Muir.Houston@glasgow.ac.uk.

Appendix 4: Information Plain Language Statement (E-whistleblowing)



College of Social
Sciences

Participant Information Sheet (Online whistleblowing platforms)

Title of the Study: The roles of digital media in developing and strengthening public procurement in Thailand

Researcher: Phannarai Sirisophonphong

Email: p.sirisophonphong.1@research.gla.ac.uk

Supervisors: Dr Neil Munro and Dr Philip Habel

Email: Neil.Munro@glasgow.ac.uk

Philip.Habel@glasgow.ac.uk

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

What is the purpose of the study?

The purpose of this research is to explore the effectiveness of the use of digital media by key stakeholders in society to encourage public participation and strengthen public procurement in Thailand. It is expected that the study could identify key benefits from and challenges confronting the implementation of online whistleblowing platforms for further development. This study is being conducted to fulfil the thesis requirement for a PhD in Politics at the University of Glasgow.

Why has an official of the Department been invited to participate?

Part of the research involves interviewing officials in public anti-corruption agencies in Thailand. To gain different perspectives, the targets are officials in various Thai public anti-corruption agencies who have in-depth knowledge and experience in managing online whistleblowing channels. For this reason, you have been invited to take part as your knowledge and opinions could be beneficial for the development of electronic whistleblowing systems in the future.

Does the official of the Department have to take part?

It is up to you whether or not to take part. Your decision will be treated respectfully and confidentially. Please inform the researcher of your decision at p.sirisophonphong.1@research.gla.ac.uk.

What will happen to the participant if he/she takes part?

You would be asked to participate in a face-to-face interview of about 30-45 minutes. You will be interviewed for a time and place that is most convenient to you. The interview will mainly cover questions related to the following issues:

- types/functions of offline and online whistleblowing platforms
- online whistleblowing rules and regulations
- effectiveness and benefits of online whistleblowing platforms
- challenges, risk, or problems of online whistleblowing platforms
- attitude toward the use of online whistleblowing platforms in Thailand

With your permission, the researcher will audiotape during the interview. The recording is to accurately record the information you provided and will be used for later analysis. If you choose not to be audiotaped, the researcher will take notes instead. If you agree to being audiotaped but feel uncomfortable at any time during the interview, the researcher can turn off the recorder at your request. You are free to withdraw from the interview at any time and without giving a reason. The interview will be immediately ceased and all records will be immediately destroyed.

How will confidentiality be maintained and the participant's privacy be protected?

Confidentiality will be respected subject to legal constraints and professional guidelines. The analysis of the interview will be written up in a thesis for the researcher's degree. Your name and other identifying information will remain confidential and will not be included in the thesis or in any published outputs. A code will be attached to the data so it remains totally anonymous. Your personal data will be deleted/destroyed after completion of the project.

Electronic databases and audio recordings will be password protected, with its own unique password and access to the password restricted to authorised personnel only i.e. the researcher, supervisors, and examiners. The data may be reused by the researcher or other genuine researchers in future academic research only if they agree to preserve the confidentiality of the information. The data will be kept securely for 10 years after completion of the project and will then be destroyed securely. Results will be made available to the researcher's peers and/or colleagues as thesis, journal articles, or written summary of results if requested.

What are the possible risk of taking part?

There is minimal risk for participating in this study. If answering some of the questions makes you uncomfortable, you can choose not to answer and you are free to withdraw from the study at any time. You will retain the right to withdraw consent to record interview at any time at which point the interview will be immediately ceased and all records will be immediately destroyed.

How will the participant benefit from the study?

There is no direct benefit to you. However, it is expected that the information obtained from the interview will help shed light on the effectiveness and unclear issues of online whistleblowing systems in Thailand. Such information will be part of an analysis to identify loopholes and provide recommendations to further develop, strengthen, and promote the implementation of online whistleblowing channels. This might benefit the Department in the future.

Results will be made available to you as written summary if requested. If you provide personal data or contact details, it will be kept as electronic files and password protected, with access to the password restricted to the researcher only. The data will be deleted once the results have been sent to you.

Who has reviewed the study?

The research has been approved by the researcher's supervisors, Dr Neil Munro and Dr Philip Habel, and has been subject to review by the College Research Ethics Committee, University of Glasgow.

Contact for Further Information

For further information or to make a complaint, please contact the College of Social Sciences Ethics Officer, Dr Muir Houston at email: Muir.Houston@glasgow.ac.uk.

Appendix 5: Consent Form



College of Social
Sciences

CONSENT FORM

Title of research project: The roles of digital media in developing and strengthening public procurement in Thailand

Name of Researcher: Phannarai Sirisophonphong

I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

I understand that Phannarai Sirisophonphong is collecting data in the form of interviews for use in an academic research project at the University of Glasgow. I give my consent to the use of data for this purpose on the understanding that:

- My participation is voluntary and that I am free to withdraw at any time without giving any reason.
- There will be no effect on my employment arising from my participation or non-participation in this research.
- Interviews will be being audio-recorded.
- All names and other material likely to identify individuals will be anonymised.
- Personal data will be deleted/destroyed after completion of the project or once the results have been sent to the participant (if requested).
- The interview data will be treated as confidential and kept in secure storage for use in future academic research for 10 years after completion of the project and will then be destroyed securely.
- The material may be used in future publications, both print and online.
- Other genuine researchers will have access to this data only if they agree to preserve the confidentiality of the information.

- I agree to waive my copyright to any data collected as part of this project.

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant Signature.....

Date.....

Name of Researcher Signature.....

Date.....

End of consent form

Appendix 6: Interview Guide (E-procurement)

| Key Topics | Questions | Probes |
|---|--|--|
| Key differences between e-auction and e-bidding | 1. Could you tell me about the differences between e-bidding and e-auction? | <ul style="list-style-type: none"> • Online vs a mix of online and offline process • Red flags (exceptional rules) <ul style="list-style-type: none"> -no TOR -annulled procedure relaunched subsequently -three-bidder procedure -short submission period -call for tender modification -length of decision period -contract value increase |
| | 2. Why does e-auction have to be replaced by e-bidding? | <ul style="list-style-type: none"> • Problems of e-auction e.g. outdated system, less transparent procedure, or less competition. |
| E-procurement regulations/exceptional rules | 3. It appears that a three-bidder procedure (at least 3 bidders in each project) is required in some e-auction contracts. Does the procedure apply with e-bidding in your department as well? Why? | <ul style="list-style-type: none"> • Reasons that the three-bidder procedure required for e-auction contracts but not for e-bidding contracts • Criteria to use or not to use the three-bidder procedure with each government project |
| Key drawbacks of e-bidding | 4. As e-bidding has been used for a few years, what do you think are the major barriers/problems of e-bidding? | <ul style="list-style-type: none"> • Loopholes of e-bidding • Problems found during the first period of the use of e-bidding e.g. IT • Current problems • Complaints from bidders |
| Key benefits of e-bidding | 5. According to media reports, the Comptroller General's Department (CGD) claims that e-bidding increases transparency and accountability in public procurement process. How far do you agree with such claim? | <ul style="list-style-type: none"> • Roles of transparency and accountability in procurement process • Concrete evidence to support the claim |
| | 6. Could you identify emerging benefits from more transparent procedure? | <ul style="list-style-type: none"> • Tangible/intangible benefits that support the effectiveness of e-bidding <ul style="list-style-type: none"> -saving costs and time -improving procurement process -encouraging competition (red flag: one bid) -ensuring compliance with procurement laws and regulations -preventing or reducing collusion and corruption |
| | 7. Other than transparency and accountability what are the major benefits of e-bidding? | |
| | 8. From your experience, does e-bidding solve the problems of e-auction? | <ul style="list-style-type: none"> • To what extent does e-bidding increase transparency and accountability or prevent collusion and corruption? |
| Recommendations | 9. What kind of support do you think would be helpful to further develop or strengthen e-bidding? | <ul style="list-style-type: none"> • Plans to change or adjust e-bidding process/rules |

Table A-12: Interview Questions – E-procurement

Appendix 7: Interview Guide (E-whistleblowing)

| Key Topics | Questions | Probes |
|---|---|---|
| Types of reporting channels | 1. What reporting channels does your agency provide? | <ul style="list-style-type: none"> • Traditional: In-person visits/post/call center/email/others • Online: website/Facebook/others |
| Key differences between traditional and online channels | 2. What are the key differences between the agency's traditional and online reporting channels? | |
| Objectives of the use of online reporting channels and response | 3. What is the agency's objective in implementing a particular online reporting platform? What's the feedback? | <ul style="list-style-type: none"> • Web-based reporting system and social networking sties <ul style="list-style-type: none"> ○ Why they have only web-based reporting system ○ Why they use a particular social media i.e. Facebook ○ Why they use both web-based reporting system and social networking sties |
| Key strength and weakness of online reporting platforms | 4. What do you think are the advantages of online reporting channels? | <ul style="list-style-type: none"> • Positive feedback they have received |
| | 5. What do you think are key limitations of the agency's online reporting channels? | <ul style="list-style-type: none"> • As social media is the least used channel, what are current problems/loopholes of online platforms that should be improved/fixed? • Comments, suggestions, or complaints about online reporting services they have received |
| | 6. As anonymity is very important to some whistleblowers, is the agency's online system truly allowing for the confidential and anonymous reporting? | <ul style="list-style-type: none"> • Whistleblower protection rules |
| Quality of information received through online channels | 7. Are the reports submitted via online channels useful or do they support the agency's work, compared to those reports received from traditional channels? | <ul style="list-style-type: none"> • Factors, challenges, or barriers to the agency that limit optimal use of information received from online channels • Common mistakes of reporters |
| Public awareness and participation using online reporting platforms | 9. How does the agency promote online reporting channels? | <ul style="list-style-type: none"> • It is likely that information on how to submit complaint or report through online platforms can be found only in the agency's website. Are there any other channels people can find such information? |
| | 10. To what extent do you think online whistleblowing channels encourage and impede public participation in public procurement? | <ul style="list-style-type: none"> • Factors that might encourage public participation/reporting (e.g., low cost, more convenient, high degree of anonymity) • Factors that might impede public participation/reporting (e.g., law, IT systems, safety concerns) |
| Recommendations | 11. What kind of support do you think would be helpful to further develop or strengthen your agency's online reporting platforms? | <ul style="list-style-type: none"> • Plans to improve or adjust online reporting channels |

Table A-13: Interview Questions – Online Whistleblowing

Appendix 8: Statistical Data Requested

| Topics | Data Requested | Purposes |
|--|--|---|
| 1) The recent trends in online reporting platforms usage | <ul style="list-style-type: none"> The number of corruption cases reported through: <ul style="list-style-type: none"> offline channels: in-person visits, post, and telephone online channels: e-mail, web portal, and social networking sites other channels (if any) | <ul style="list-style-type: none"> To explore the recent trends in reporting channels usage and the extent to which reporters use online platforms to provide tip-offs about corruption in public procurement compared to offline platforms. |
| 2) Cases acceptance rate/quality of the reports received | <ul style="list-style-type: none"> The number of reports that were rejected and accepted for further investigation | <ul style="list-style-type: none"> To have an overview of the quality of reports that were sent to the authorities. |
| 3) Anonymity option | <ul style="list-style-type: none"> The number of anonymous reports | <ul style="list-style-type: none"> To find out to what extent the anonymity option has been used by reporters. |

Table A-14: Data Requested from the Anti-corruption Agencies in Thailand

List of References

ADB/OECD (Asian Development Bank and Organisation for Economic Co-operation and Development) (2006a) *Curbing corruption in public procurement in Asia and the Pacific: progress and challenges in 25 countries*. Manila: ADB/OECD.

ADB/OECD (Asian Development Bank and Organisation for Economic Co-operation and Development) (2006b) *Anti-corruption policies in Asia and the Pacific: thematic review on provisions and practices to curb corruption in public procurement: country self-assessment reports*. Manila: ADB/OECD.

ADB/OECD (Asian Development Bank and Organisation for Economic Co-operation and Development) (2008) *Fighting bribery in public procurement in Asia and the Pacific*. Paris: ADB/OECD.

Ahuja, M. (2010). Analysis: Thailand struggles against tide of corruption. *Reuters* [online], 28 September. Available from: <https://www.reuters.com/article/us-thailand-corruption/analysis-thailand-struggles-against-tide-of-corruption-idUSTRE68R0RZ20100928> [Accessed 30 May 2019].

Aljazeera (2019) Military government chief Prayuth Chan-ocha elected Thai PM. *Aljazeera* [online], 5 June. Available from: <https://www.aljazeera.com/news/2019/06/military-government-chief-prayuth-chan-ocha-elected-thai-pm-190605173837759.html> [Accessed 5 June 2019].

Amundsen, I. (2006) *Political corruption*. Bergen: U4 Anti-Corruption Resource Centre.

Andvig, J. C., Fjeldstad, O-H., Amundsen, I., Sissener, T. and Søreide, T. (2001) *Corruption: a review of contemporary research, Report R 2001: 7*. Bergen: Chr. Michelsen Institute.

Apaza, C. R. and Chang, Y. (2011) What makes whistleblowing effective: whistleblowing in Peru and South Korea. *Public Integrity*, 13 (2), 113-129.

Arndt, C. and Oman, C. P. (2006) *Uses and abuses of governance indicators*. Paris: OECD Development Centre.

Arora, K. G. (2007) *Introductory microeconomics for class xii*. New Delhi: Tata McGraw-Hill Publishing Company Limited.

Arpit, B. (2012) E-government and social media as openness and anti-corruption strategy. *Research Journal of Management Sciences*, 1 (1), 48-52.

Arnold, W. (2006) Telecom deal by Singapore roused Thais. *The New York Times* [online], 3 October. Available from: <https://www.nytimes.com/2006/10/03/business/worldbusiness/03singapore.html> [Accessed 27 May 2019].

Ayers, S. and Kaplan, S. E. (2005) Wrongdoing by consultants: an examination of employees' reporting intentions. *Journal of Business Ethics*, 57 (2), 121–137.

Balsevich, A., Pivovarova, S. and Podkolzina, E. (2011) *Information transparency in public procurement: how it works in Russian regions*. Working papers series: economics: WP BRP 01/EC/2011. National Research University.

Bangprapa, M. (2019) Doubts cast on May 9 poll results. *Bangkok Post* [online], 12 April. Available from: <https://www.bangkokpost.com/news/politics/1660300/doubts-cast-on-may-9th-poll-results> [Accessed 28 May 2019].

Barakso, M., Sabetet, D. M. and Schaffner, B. F. (2014) *Understanding political science research methods: the challenge of inference*. New York and Oxon: Routledge.

Batchelor, R. and Scott, N. (2005) *Good practice paper on ICTs for economic growth and poverty reduction*. Paris: OECD.

BBC (2019). ทักมึน ชินวัตร กับ 3 ความผิดพลาดราคาแพง. *BBC* [online], 15 February. Available from: <https://www.bbc.com/thai/thailand-47234217> [Accessed 27 May 2019].

BBG (The Austrian Federal Public Procurement Agency) (2008) *IPA 2008 twinning light project "strengthening capacities to remedy irregularities in public procurement procedures": Public procurement against corruption* [online]. Available from:

http://www.javnabava.hr/userdocsimages/userfiles/file/Razne%20publikacije/Brochure_anti_corruption_ENG.pdf [Accessed 25 November 2015].

Bertot, J. C., Jaeger, P. T. and Grimes, J. M. (2010) Using ICTs to create a culture of transparency: e-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27 (3), 264-271.

Bhatnagar, S. (2003) E-government and access to information: access to information. In: Eigen, P., ed. *Global corruption report 2003*. Berlin: Transparency International, 24–32.

Brata, R. A. (2014) *Why did anticorruption policy fail?: a study of anticorruption policy implementation failure in Indonesia*. Charlotte: Information Age Publishing Inc.

Brink, A. (2011) *Corporate governance and business ethics*. Heidelberg: Springer Science & Business Media.

Burnham, P., Lutz, K. G., Grant, W. and Layton-Henry, Z. (2008) *Research methods in politics*. 2nd ed. Hampshire and New York: Palgrave Macmillan.

Butler, E. (2012) *Public choice: a primer*. London: The Institute for Economic Affairs.

Cappella, J. C. and Jamieson, K. H. (1997) *Spiral of cynicism: the press and the public good*. New York: Oxford University Press.

Cappelli, D. M., Moore, A. P. and Trzeciak, R. F. (2012) *The CERT guide to insider threats: how to prevent, detect, and respond to Information technology crimes (theft, sabotage, fraud)*. Boston: Addison-Wesley.

Carson, L. D. and Prado, M. M. (2016) Using institutional multiplicity to address corruption as a collective action problem: Lessons from the Brazilian case. *The Quarterly Review of Economics and Finance*, 62, 56–65.

CGD (The Comptroller General's Department) (2015a) *E-bidding*. The Comptroller General's Department. Available from: <https://www.youtube.com/watch?v=tYLve7JDq8M> [Accessed 29 October 2016].

CGD (The Comptroller General's Department) (2015b) แนวทางปฏิบัติในการจัดหาพัสดุด้วยวิธีตลาดอิเล็กทรอนิกส์ (*Electronic Market: e - market*) และด้วยวิธีประกวดราคาอิเล็กทรอนิกส์ (*Electronic Bidding: e - bidding*). Bangkok: The Comptroller General's Department (กก (กพ) 0421.3/ว 64).

CGD (The Comptroller General's Department) (2015c) แนวทางปฏิบัติในการจัดหาพัสดุด้วยวิธีตลาดอิเล็กทรอนิกส์ (*Electronic Market: e - market*) และด้วยวิธีประกวดราคาอิเล็กทรอนิกส์ (*Electronic Bidding: e - bidding*). Bangkok: The Comptroller General's Department (กก (กพ) 0421.3/ว 150).

Chachavalpongpun, P. (2018) The latest Thai corruption scandal is causing problems for the ruling junta. *The Washington Post* [online], 23 January. Available from: https://www.washingtonpost.com/news/democracy-post/wp/2018/01/23/the-latest-thai-corruption-scandal-is-causing-problems-for-the-ruling-junta/?utm_term=.bb26cda94c82 [Accessed 28 May 2019].

Chantanusornsiri, W. (2015) E-bidding aims to hit graft. *Bangkok Post* [online], 17 September. Available from: <http://www.bangkokpost.com/business/news/696140/e-bidding-aims-to-hit-graft> [Accessed 29 October 2015].

Chen, P-H. 2014. The vulnerability of Thai democracy: coups d'état and political changes in modern Thailand. In: Liamputtong, P., ed. *Contemporary socio-cultural and political perspectives in Thailand*. New York and London: Springer Dordrecht Heidelberg, 185-207.

Chvalkovská, J. and Skuhrovec, J. (2010) *Measuring transparency in public spending: case of Czech public e-procurement information system*. IES Working Paper: 11/2010. IES FSV. Charles University.

Clarke, A. (2014) Digital government. In: Harvey, K., ed. *Encyclopedia of social media and politics*. London: Sage, 394-396.

Cooper, A. (2018a) Brazil elects Bolsonaro after anti-corruption campaign. *Organized Crime and Corruption Reporting Project (OCCRP)* [online], 30 October. Available from: <https://www.occrp.org/en/27-ccwatch/cc-watch-briefs/8821-brazil-elects-bolsonaro-after-anti-corruption-campaign> [Accessed 20 February 2019].

- Cooper, A. (2018b) Thai Government Accused of Stealing \$3.2 Million From Poverty Fund. *Organized Crime and Corruption Reporting Project (OCCRP)* [online], 22 March. Available from: <https://www.occrp.org/en/27-ccwatch/cc-watch-briefs/7812-thai-government-accused-of-stealing-3-2-million-from-poverty-fund> [Accessed 28 May 2019].
- Corben, R. (2013) Thai government, opposition at odds over amnesty bill. *Voice of America* [online], 4 August. Available from: <http://www.voanews.com/content/thai-government-opposition-at-odds-over-amnesty-bill/1723269.html> [Accessed 9 October 2015].
- Cortina, L. M. and Magley, V. J. (2003) Raising voice, risking retaliation: events following interpersonal mistreatment in the workplace. *Journal of Occupational Health Psychology*, 8 (4), 247-265.
- Cressey, D. R. (1950) The criminal violation of financial trust. *American Sociological Review*, 15 (6), 738-743.
- Curtis, M. (2006) Are audit-related ethical decisions dependent upon mood? *Journal of Business Ethics*, 68 (2), 191-209.
- Dahl, M. (2012) How do international organizations scrutinize transforming states? – the case of Transparency International and the Baltic states. In: De Sousa, L. Hindess, B. and Larmour, P., eds. *Governments, NGOs and anti-corruption: the new integrity warriors*. London/New York: Routledge, 152-67.
- Dahlström, C. (2015) Bureaucracy and corruption. In: Heywood, P. M., ed. *Routledge handbook of political corruption*. New York: Routledge.
- Della Porta, D. and Vannucci, A. (translated by Wilson, A.) (2007) Corruption and anti-corruption: the political defeat of 'clean hands' in Italy. *West European Politics*, 30(4), 830-853.
- Deutsche Welle. (2019) Thai parliament elects Prayuth Chan-ocha as prime minister. *Deutsche Welle* [online], 5 June. Available from: <https://www.dw.com/en/thai-parliament-elects-prayuth-chan-ocha-as-prime-minister/a-49071811> [Accessed 5 June 2019].
- Diamond, L. (2007) A quarter-century of promoting democracy. *Journal of Democracy*, 18 (4), 118-120.

- Diggs-Brown, B. (2011) *Strategic public relations: an audience-focused practice*. Boston: Cengage Learning.
- Doherty, T. L., Horne, T. and Wootton, S. (2014) *Managing public service: implementing changes: a thoughtful approach to the practice of management*. 2nd ed. Oxon: Routledge.
- Donkin, M., Smith, R. and Brown, A. J. (2008) How do officials report?: internal and external whistleblowing. In: Brown, A.J., ed. *Whistleblowing in the Australian public sector: enhancing the theory and practice of internal witness management in public sector organisations*. Canberra: The Australian National University, 83-108.
- Dussuyer, I., Mumford, R. and Sullivan, G. (2011) Reporting corrupt practices in the public interest: innovative approach to whistleblowing. In: Graycar, A. and Smith, R. G., eds. *Handbook of global research and practice in corruption*. Cheltenham: Edward Elgar, 429-462.
- Dworkin, T. M. and Baucus, M. S. (1998) Internal vs. external whistleblowers: a comparison of whistleblowing processes. *Journal of Business Ethics*, 17, 1281-1298.
- Eisenhardt, K. M. (1989) Agency theory: an assessment and review. *The Academy of Management Review*, 14 (1), 57-74.
- ERC (the Ethics Resource Center) (2012a) *Inside the mind of a whistleblower: supplemental report of the 2011 national business ethics survey*. Arlington: the ERC.
- ERC (the Ethics Resource Center) (2012b) *National business ethics survey of fortune 500 employees: an investigation into the state of ethics at America's most powerful companies*. Arlington: the ERC.
- Etzioni-Halevy, E. (2002) Exchanging material benefits for political support. In: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.
- Fazekas, M. (2016) An objective corruption risk index using public procurement data. *European Journal on Criminal Policy and Research*, 1-29.

Fazekas, M. and Kocsis, G. (2015) *Uncovering high-level corruption: cross-national corruption proxies using government contracting data*. Working Paper series: GTI-WP/2015:02. Budapest: Government Transparency Institute.

Fazekas, M. and Tóth, I. J. (2014a) *New ways to measure institutionalised grand corruption in public procurement*. Bergen: U4 Anti-Corruption Resource Centre. Available from: <http://www.u4.no/publications/new-ways-to-measure-institutionalised-grand-corruption-in-public-procurement/> [Accessed 29 October 2015].

Fazekas, M. and Tóth, I. J. (2014b) *Three indicators of institutionalised grand corruption using administrative data*. Budapest: Corruption Research Center Budapest.

Fazekas, M., Chvalkovska, J., Skuhrovec, J., Tóth I. J. and King, L. P. (2013a) *Are EU funds a corruption risk?: the impact of EU funds on grand corruption in Central and Eastern Europe*. Budapest: Corruption Research Center Budapest.

Fazekas, M., Tóth I. J. and King, L. P. (2013b) *Anatomy of grand corruption: a composite corruption risk index based on objective data*. Budapest: Corruption Research Center Budapest.

Fazekas, M., Tóth I. J. and King, L. P. (2013c) *Corruption manual for beginners: "corruption techniques" in public procurement with examples from Hungary*. Working Paper series: CRC-WP/2013:01, GTI-WP/2013:01. Budapest: Corruption Research Center Budapest.

Finch, S. (2013) Crowds march against Thai government's bid to erase former prime minister Thaksin's corruption conviction. *The Independent* [online], 4 November. Available from: <http://www.independent.co.uk/news/world/asia/crowds-march-against-thai-governments-bid-to-erase-former-prime-minister-thaksin-s-corruption-8921407.html> [Accessed 9 October 2015].

Furubotn, E. G. and Richter, R. (2005) *Institutions and economic theory: the contribution of the new institutional economics*. 2nd ed. Ann Arbor: The University of Michigan Press.

Gabrielian, V. et al. (2007) Qualitative research methods. In: Miller, G. J. and Yang, K., eds. *Handbook of research methods in public administration*. 2nd ed. Boca Raton: CRC Press.

- Gagnon, Y.C. (2010) *The case study as research method: a practical handbook*. Québec: Presses de l'Université du Québec.
- Gao, J., Greenberg, R. and Wong-On-Wing, B. (2014) Whistleblowing intentions of lower-level employees: the effect of reporting channel, bystanders, and wrongdoer power status. *Journal of Business Ethics*, 126 (1), 85-99.
- Gardiner, J. A. (2002) Defining corruption. In: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.
- Gbegi, D. O. and Adebisi, J. F. (2013) The new fraud diamond model: how can it help forensic accountants in fraud investigation in Nigeria? *European Journal of Accounting Auditing and Fiancé Research*, 1 (4), 129-138.
- Gerring, J. (2006) *Case study research: principles and practices*. New York: Cambridge University Press.
- Ghedin, G. (2014) Social media & mobile in Thailand: numbers, main players and trends. *Digital in the Round* [online], 23 January. Available from: <http://www.digitalintheround.com/social-media-mobile-thailand/> [Accessed 8 February 2015].
- Gillespie, A. (2013) *Business economics*. 2nd ed. Oxford: Oxford University Press.
- Girling, J. (1997) *Corruption, capitalism, and democracy*. London and New York: Routledge.
- Goldmann, P. D. (2010) *Financial services anti-fraud risk and control workbook*. New Jersey: John Wiley & Sons.
- Goudie, W. A. and Stasavage, D. (1997) *Corruption: the issues*. Organisation for Economic Cooperation and Development (OECD). Technical Paper no. 122. Available from: <http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan044467.pdf> [Accessed 8 February 2015].
- Hanna, N. K. (2009) *E-transformation: enabling new development strategies*. New York: Springer Science & Business Media.

- Hardy, C. A. and Williams, S. P. (2008) E-government policy and practice: a theoretical and empirical exploration of public e-procurement. *Government Information Quarterly*, 25 (2), 155–180.
- Hasani, N. (2013) E-government as an anti-corruption tool. The case of Albania. *Academic Journal of Interdisciplinary Studies*, 2 (8), 712-716.
- Hays, J. (2014a). *Facts and details: bureaucracy, local government, patron-client relations, and welfare in Thailand* [online]. Available from: http://factsanddetails.com/southeast-asia/Thailand/sub5_8f/entry-3278.html [Accessed 30 May 2019].
- Hays, J. (2014b). *Facts and details: corruption in Thailand: cronyism, police, military, Thaksin and politicians after Thaksin* [online]. Available from: http://factsanddetails.com/southeast-asia/Thailand/sub5_8f/entry-3279.html [Accessed 30 May 2019].
- Hays, J. (2014c). *Facts and details: Thai society: hierarchy, status, class, hi-so culture and the patron-client system* [online]. Available from: http://factsanddetails.com/southeast-asia/Thailand/sub5_8c/entry-3228.html [Accessed 30 May 2019].
- Heacock, M. V. and McGee, G. W. (1987) Whistleblowing: an ethical issue in organizational and human behavior. *Business & Professional Ethics Journal*, 6 (4), 35-46.
- Heidenheimer, A. J. (2002) Perspectives on the perception of corruption. In: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.
- Heidenheimer, A. J. and Johnston, M. (2002) Introduction. In: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.
- Heidenheimer, A. J., Johnston, M. and LeVine, V. T. (1989) Introduction. In: Heidenheimer, A. J., Johnston, M. and LeVine, V. T., eds. *Political corruption: a handbook*. New Jersey: Transaction Publishers.
- Heywood, P. (1997) Political corruption: problems and perspectives. *Political Studies*, 45 (3), 417-435.

Hollingshead, A. B., Jacobsohn, G. C. and Beck, S. J. (2007) Motives and goals in context: a strategic analysis of information sharing in groups. *In: Fiedler, K., ed. Social communication*. New York: Psychology Press, 257-280.

Hough, D. 2017. *Analysing corruption: an introduction*. Newcastle upon Tyne: Agenda Publishing.

IBP (International Business Publications) (2013) *Thailand customs, trade regulations and procedures handbook volume 2: trade policy and customs procedures development*. Washington, D.C.: IBP.

Itthipongmaetee, C. (2018) Thailand rises 2 spot in world press freedom rankings. *Khaosod English* [online], 25 April. Available from: <http://www.khaosodenglish.com/featured/2018/04/25/thailand-rises-2-spots-in-world-press-freedom-rankings/> [Accessed 31 May 2018].

Iyer, N. and Samociuk, M. (2012) *Fraud and corruption: prevention and detection*. Hants: Gower Publishing Limited.

Jaipragas, B. and Thongnoi, J. (2019) Thailand election: confusion over party-list seat allocation sparks controversy. *South China Morning Post* [online], 12 April. Available from: <https://www.scmp.com/week-asia/article/3005789/thailand-election-confusion-over-party-list-seat-allocation-sparks> [Accessed 28 May 2019].

Jensen, M. and Meckling, W. (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.

Johnsøn, J., Taxell, N. and Zaum, D. (2012) *Mapping evidence gaps in anti-corruption: assessing the state of the operationally relevant evidence on donors' actions and approaches to reducing corruption*. Bergen: U4 Anti-Corruption Resource Centre. Available from: <http://www.u4.no/publications/mapping-evidence-gaps-in-anti-corruption-assessing-the-state-of-the-operationally-relevant-evidence-on-donors-actions-and-approaches-to-reducing-corruption/> [Accessed 15 November 2015].

Johnson, K. (2019) How Thailand's coup leader kept power through election. *The New York Times* [online], 5 June. Available from:

<https://www.nytimes.com/reuters/2019/06/05/world/asia/05reuters-thailand-politics-military-analysis.html?searchResultPosition=10> [Accessed 5 June 2019].

Johnson, R. A. (2003) *Whistleblowing: when it works-and why*. Colorado: Lynne Rienner Publishers.

Johnson, R. A. and Sharma, S. (2004) About corruption. In: Johnson, R. A., ed. *The struggle against corruption: a comparative study*. New York and Basingstoke: Palgrave-Macmillan.

Johnston, M. (1996) The search for definitions: the vitality of politics and the issue of corruption. *International Social Science Journal*, 48 (3), 321-335.

Johnston, M. (1997) *What can be done about entrenched corruption?*. Paper presented at the Annual World Bank Conference on Development Economics. Washington, D.C., April 30 May 1, 1997.

Johnston, M. (2002a) Good governance: rule of law, transparency, and accountability. Available from: <http://etico.iiiep.unesco.org/sites/default/files/unpan010193.pdf> [Accessed 1 February 2019].

Johnston, M. (2002b) The definitions debate: old conflicts in new guises. In: Jain, A. K., ed. *The political economy of corruption*. London and New York: Routledge, 11-31.

Johnston, M. (2005) *Syndromes of corruption: wealth power and democracy*. New York: Cambridge University Press.

Jones, A. (2014) Thaksin corruption claims stoke Thai protest outrage. *The Nation* [online], 21 January. Available from: <http://www.nationmultimedia.com/politics/Thaksin-corruption-claims-stoke-Thai-protest-outra-30224822.html> [Accessed 10 November 2014].

Kajsiu, B. (2014) *A discourse analysis of corruption: instituting neoliberalism against corruption in Albania, 1998-2005*. Surrey and Burlington: Ashgate Publishing Limited.

Kalubanga, M., Kakwezi, P. and Kayiise D. (2013) The effects of fraudulent procurement practices on public procurement performance. *International Journal of Business and Behavioral Sciences*, 3 (1), 17-27.

- Kapiszewski, D., MacLean, L. M. and Read, B. L. (2014) *Field research in political science: practices and principles*. Cambridge: Cambridge University Press.
- Kaplan, S. E. and Whitecotton, S. M. (2001) An examination of auditors' reporting intentions when another auditor is offered client employment. *Auditing*, 20 (1), 44–63.
- Kashta, R. (2012) *E-procurement systems in Albania, impact and lessons learned*. University of Tirana.
- Khaosod (2018) แลคอรืร้ปชั่นซังรุนแรง ดิดสินบนเจอบ่อยสุด คาดมูลค่าเสียหายกว่า 200,000 ล้าน. *Khaosod* [online], 15 February. Available from: https://www.khaosod.co.th/economics/news_755850 [Accessed 20 June 2018].
- Kingston, C. (2004) *Parochial corruption*. Amherst College. Available from: <https://pdfs.semanticscholar.org/f3da/5011e8d31f16132a6ebdc72f7b82ead9f2ce.pdf> [Accessed 29 January 2019].
- Kizza, J. M. (2013) *Ethical and social issues in the information age: texts in computer science*. 5th ed. London: Springer-Verlag London Ltd.
- Klitgaard, R. (1988) *Controlling corruption*. Berkeley and London: University of California Press.
- Klitgaard, R. (2015) *Addressing corruption together*. OECD. Available from: <https://www.oecd.org/dac/conflict-fragility-resilience/publications/FINAL%20Addressing%20corruption%20together.pdf> [Accessed 20 February 2019].
- Kobayashi, M. (2006) Political clientelism and corruption: neo-structuralism and republicanism. In: Kawata, J., ed. *Comparing political corruption and clientelism*. Hamshire: Ashgate Publishing, Ltd., 1-22.
- Krueger, A. O. (1974) The political economy of the rent-seeking society. *The American Economic Review*, 64 (3), 291-303.

- Kurer, O. (2015) Definitions of corruption. *In: Heywood, P. M., ed. Routledge handbook of political corruption*. Abingdon: Routledge, 30-41.
- Lambsdorff, J. G. (2016) Measuring corruption – the validity and precision of subjective indicators (CPI). *In: Sampford, C., Shacklock, A., Connors, C. and Galtung, F., eds. Measuring corruption*. London/New York: Routledge, 81-100.
- Lanvin, B. (2005) The elusive quest for e-leadership: what can we learn from the champions? *In: Schwere, R., ed. E-development: from excitement to effectiveness*. Washington DC: World Bank Publications, 65-78.
- Larmour, P. and Wolanin, N. (2013) Introduction. *In: Larmour, P. and Wolanin, N., eds. Corruption and anti-corruption*. Canberra: Australian National University E-Press.
- Lee, J. Y., Heilmann, S. G., and Near, J. P. (2004) Blowing the whistle on sexual harassment: test of a model of predictors and outcomes. *Human Relations*, 57 (3), 297-322.
- Lehman, D. Jr. (2015) *Colonialism to independence: Southeast Asia (1511-2014)*. Lulu.
- Lewis, D., Brown, A. J. and Moberly, R. (2014) Whistleblowing, its importance and the state of the research. *In: Brown, A. J., Lewis, D., Moberly, R. and Vandekerckhove, W., eds. International handbook on whistleblowing research*. Cheltenham: Edward Elgar Publishing, 1-34.
- Lewis-Faupel, S., Neggers, Y., Olken B. A. and Pande R. (2014) *Can electronic procurement improve infrastructure provision? evidence from public works in India and Indonesia*. NBER Working Paper No. 20344. Cambridge, MA: National Bureau of Economic Research.
- Lowenstein, D. H. (1989) Legal efforts to define political bribery. *In: Heidenheimer, A. J., Johnston, M. and LeVine, V. T., eds. Political corruption: a handbook*. New Jersey: Transaction Publishers.
- Luijken, T. and Martini, M. (2014) *The role of technology in reducing corruption in public procurement*. Berlin: Transparency International. Available from: www.transparency.org/files/content/corruptionqas/The_role_

of_technology_in_reducing_corruption_in_public_procurement_2014.pdf [Accessed 12 November 2015].

Manager Online (2017) ป.ป.ท.เผยสถิติคนร้องเรียนปัญหาทุจริตเฉลี่ย 2-3 พันเรื่อง/ปี. *Manager Online* [online], 15 April. Available from: <https://mgronline.com/uptodate/detail/9600000038195> [Accessed 20 February 2019].

Mandel, R. (2011) *Dark logic: transnational criminal tactics and global security*. Stanford, CA: Stanford University Press.

Marquette, H. and Peiffer, C. (2015) *Corruption and collective action*. Birmingham: Developmental Leadership Program (DLP), University of Birmingham.

Martini, M. (2012) *Best practices in reducing bureaucracy and corruption*. Berlin: Transparency International. Available from: https://www.transparency.org/files/content/corruptionqas/Best_practices_in_reducing_bureaucracy_and_corruption.pdf [Accessed 12 November 2015].

Matechak, J. P. (2002) *Fighting corruption in public procurement*. Washington, D.C.: Center for International Private Enterprise.

McClure, D. L. (2000) *Before the subcommittee on government management, information and technology, committee on government reform, house of representatives*. Washington, DC: United States General Accounting Office. Available from: <http://www.gao.gov/new.items/a200179t.pdf> [Accessed 12 November 2015].

McCusker, R. (2006) *Review of anti-corruption strategies: technical and background paper no.23*. Canberra: Australian Institute of Criminology.

McEachern, W. A. (2008) *Economics: a contemporary introduction*. Mason: Southwest Cengage Learning.

McNabb, D. E. (2015) *Research methods for political science: quantitative and qualitative methods*. 2nd ed. London and New York: Routledge.

- Merriam, S. B. and Tisdell, E. J. (2015) *Qualitative research: a guide to design and implementation*. 4th ed. San Francisco, CA: Jossey-Bass.
- Mesmer-Magnus, J. and Viswesvaran, C. (2005) Whistleblowing in organizations: an examination of correlates of whistleblowing intentions, actions, and retaliation. *Journal of Business Ethics*, 62 (3), 277-297.
- Miceli, M. P. and Near, J. P. (1992) *Blowing the whistle: the organizational and legal implications for companies and employees*. New York: Lexington Books.
- Miceli, M. P. and Near, J. P. (2002) What makes whistle-blowers effective? Three field studies. *Human Relations*, 55 (4), 455-479.
- Miceli, M. P., Dreyfus, S. and Near, J. P. (2014) Outsider 'whistleblowers': conceptualizing and distinguishing 'bell-ringing' behavior. In: Brown, A.J., Lewis, D., Moberly, R. and Vandekerckhove, W. eds. *International handbook on whistleblowing research*. Cheltenham: Edward Elgar Publishing, 71-94.
- Miceli, M. P., Rehg, M., Near, J. P., and Ryan, K. C. (1999) Can laws protect whistle-blowers? Results of a naturally occurring field experiment. *Work and Occupations*, 26 (1), 129–151.
- Mistry, J. J. and Jalal, A. (2012) An empirical analysis of the relationship between e-government and corruption. *The International Journal of Digital Accounting Research*, 12, 145-176.
- Moodie, G. C. (1980) On political scandals and corruption. *Government and Opposition*, 15 (2), 208-22.
- Moore, E. (1994) Toward public sector integrity in New South Wales. In: Preston, N., ed. *Ethics for the public sector: education and training*. Leichhardt: The Federation Press.
- Mullen, J. (2013) 10 questions: what's behind the protests in Thailand?. *CNN* [online], 27 November. Available from: <http://edition.cnn.com/2013/11/26/world/asia/thailand-protests-explainer/> [Accessed 9 October 2015].
- Mungiu-Pippidi, A. (2006) Corruption: diagnosis and treatment. *Journal of Democracy*, 17 (3), 86-99.

- Mungiu-Pippidi, A. (2017) Introduction: identifying and explaining governance virtuous circles. In: Mungiu-Pippidi, A. and Johnston, M., eds. *Transitions to good governance: creating virtuous circles of anti-corruption*. Cheltenham: Edward Elgar Publishing Limited, 1–30.
- Mustafa, A. (2008) *Case study method: theory and practice, research and management approaches*. New Delhi: Atlantic Publishers & Distributions.
- NACC (the Office of the National Anti-Corruption Commission) (2014) *Duties of responsibilities*. Nonthaburi: NACC. Available from: https://www.nacc.go.th/ewt_news.php?nid=937 [Accessed 30 March 2017].
- NACC (the Office of the National Anti-Corruption Commission) (2015) *Advice complaints procedure*. Nonthaburi: NACC. Available from: https://www.nacc.go.th/main.php?filename=poll_accuse [Accessed 30 March 2017].
- Near, J. P. and Miceli, M.P. (1985) Organizational dissidence: the case of whistle-blowing. *Journal of Business Ethics*, 4 (1), 1-16.
- Near, J. P. and Miceli, M. P. (1995) Effective whistleblowing. *Academy of Management Review*, 20 (3), 679–708.
- Near, J. P., Dworkin, T., and Miceli, M. (1993) Explaining the whistle-blowing process: suggestions from power theory and justice theory. *Organization Science*, 4 (3), 393-411.
- Near, J. P., Rehg, M. T., Scotter, J. R. V. and Miceli, M. P. (2004) Does type of wrongdoing affect the whistleblowing process? *Business Ethics Quarterly*, 14 (2), 219–242.
- Neupane, A., Soar, J. and Vaidya, K. (2012a) Evaluating the anti-corruption capabilities of public e-procurement in a developing country. *The Electronic Journal on Information Systems in Developing Countries*, 55 (2), 1-17. Available from: <http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/1041/453> [Accessed 29 October 2015].
- Neupane, A., Soar, J., Vaidya, K. and Yong, J. (2012b) Role of public e-procurement technology to reduce corruption in government procurement. *International Public Procurement Conference*. Seattle, Washington, 304-334.

Neupane, A., Soar, J. and Vaidya, K. (2014) An empirical evaluation of the potential of public e-procurement to reduce corruption. *Australasian Journal of Information Systems*, 18 (2), 21-44.

Nye, J. S. (1967) Corruption and political development: a cost-benefit analysis. *The American Political Science Review*, 61 (2), 417-427.

OAG (the Office of the Auditor General of Thailand) (2016) *History* [online]. Bangkok: OAG. Available from: <http://www.oag.go.th/en/history> [Accessed: 15 April 2016].

OAG (the Office of the Auditor General of Thailand) (2017) *Report a complaint* [online]. Bangkok: OAG. Available from: <http://complaint.oag.go.th/> [Accessed: 1 April 2017].

OECD (the Organisation for Economic Co-operation and Development) (2009a) *Guidelines for fighting bid rigging in public procurement: helping governments to obtain best value for money*. Paris: OECD Publishing. Available from: <https://www.oecd.org/competition/cartels/42851044.pdf> [Accessed 14 September 2017].

OECD (the Organisation for Economic Co-operation and Development) (2009b) *OECD e-government studies, rethinking e-Government services: user-centred approaches*. Paris: OECD Publishing.

OECD (the Organisation for Economic Co-operation and Development) (2010a) *Global forum on competition: roundtable on collusion and corruption in public procurement*. DAF/COMP/GF(2010)6.

OECD (the Organisation for Economic Co-operation and Development) (2010b) *OECD investment policy reviews OECD investment policy reviews: Indonesia 2010*. Paris: OECD Publishing.

OECD (the Organisation for Economic Co-operation and Development) (2013) *Leading practitioners on public procurement*. Paris: OECD Publishing. Available from: <http://www.oecd.org/gov/ethics/meetingofleadingpractitionersonpublicprocurement.htm> [Accessed 29 October 2015].

OECD (the Organisation for Economic Co-operation and Development) (2015) *Government at a glance 2015*. Paris: OECD Publishing. Available from: <http://www.oecd-ilibrary.org/docserver/download/4215081ec042.pdf?expires=1447106065&id=id&accname=guest&checksum=82C0BA6D241DB188718C5775F3A75642> [Accessed 29 October 2015].

OECD the (Organisation for Economic Co-operation and Development) (2016) *Preventing corruption in public procurement*. Available from: <http://www.oecd.org/gov/ethics/Corruption-Public-Procurement-Brochure.pdf> [Accessed 11 June 2018].

Office of Government Commerce (2008) *An introduction to public procurement*. London: Office of Government Commerce.

Orvis, S. and Drogus, C. A. (2013) *Introducing comparative politics: concepts and cases in context*. 3rd ed. Washington, DC: Sage/CQ Press.

PACC (the Office of the Public Sector Anti-Corruption Commission) (2016a) *FAQ*. Nonthaburi: PACC. Available from: <http://www.pacc.go.th/index.php/faq> [Accessed 30 March 2017].

PACC (The Office of the Public Sector Anti-Corruption Commission) (2016b) *สถิติการตรวจสอบข้อเท็จจริง*. Nonthaburi: PACC. Available from: <http://www2.pacc.go.th/th/stat> [Accessed 20 February 2019].

Paddock, R. C. (2019) Thailand junta leader named prime minister after contentious vote. *The New York Times* [online], 5 June. Available from: <https://www.nytimes.com/2019/06/05/world/asia/thailand-prayuth-prime-minister.html> [Accessed 5 June 2019].

Pani, A. K. (2007) *E-procurement in emerging economies: theory and cases*. Hershey: Idea Group Inc.

Philp, M. (1997) Defining political corruption. *Political Studies*, 45 (3), 436–462.

Philp, M. (2002) Conceptualizing political corruption. In: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.

Poeschl, G. and Ribeiro, R. (2015) Everyday opinions on grand and petty corruption: a Portuguese study. In: Teixeira, A. A. C., Pimenta, C., Maia, A. and Moreira, J. A., eds. *Corruption, economic growth and globalization*. London and New York: Routledge.

Quah, J. S. T. (2003) Causes and consequences of corruption in Southeast Asia: a comparative analysis of Indonesia, the Philippines and Thailand. *Asian Journal of Public Administration*, 25 (2), 235-266.

Quah, J. S. T. (2011) *Curbing corruption in Asian countries: an impossible dream?: research in public policy analysis and management: vol 20*. Bingley: Emerald Group Publishing.

Ramirez, M. (2015) *The Asia-Pacific investigations review 2016* [online]. Bangkok: Tilleke & Gibbins. Available from: https://www.tilleke.com/sites/default/files/2015_Nov_GIR_Asia_Pacific_Investigations_Thailand.pdf [Accessed: 10 July 2018].

Rathbun, B. C. (2008) Interviewing and qualitative field methods: pragmatism and practicalities. In: Box-Steffensmeier, J. M., Brady, H. E. and Collier, D., eds. *The Oxford handbook of political methodology*. New York: Oxford University Press.

Rathprasert, K. (2016) *Corruption in the Thai bureaucracy as the economic threat: an analysis for approaches of solutions*. 32nd IASTEM International Conference, Moscow, Russian Federation, 7th-8th September 2016. Available from: http://www.worldresearchlibrary.org/up_proc/pdf/416-147557666649-53.pdf [Accessed 11 June 2018].

Regan, H. and Olarn, K. (2019) Confusion mounts as Thailand's election results delayed. *CNN* [online], 25 March. Available from: <https://edition.cnn.com/2019/03/24/asia/thailand-election-result-intl/index.html> [Accessed 28 May 2019].

Rose-Ackerman, S. (1978) *Corruption: a study in political economy*. New York and London: Academic Press.

Rose-Ackerman, S. (1999) *Corruption and government: causes, consequences and reform*. Cambridge: Cambridge University Press.

- Rosenbloom, D. H. (2009) Foreword. *In: Gong, T. and Ma, S. K., eds. Preventing corruption in Asia: institutional design and policy capacity.* New York: Routledge.
- Rothstein, B. (2011) Anti-corruption: the indirect 'big bang' approach. *Review of International Political Economy*, 18 (2), 228-50.
- RSF (Reporters Without Borders) (2019a) Gagged by "Peace and Order". *RSF* [online]. Available from: <https://rsf.org/en/thailand> [Accessed 31 May 2019].
- RSF (Reporters Without Borders) (2019b) Index details: data of press freedom ranking 2019. *RSF* [online]. Available from: https://rsf.org/en/ranking_table [Accessed 31 May 2019].
- RSF (Reporters Without Borders) (2019c) Our activities. *RSF* [online]. Available from: <https://rsf.org/en/our-activities> [Accessed 31 May 2019].
- Sakawee, S. (2014) Thailand social media stats: 28 million on Facebook, 4.5 million on Twitter, 1.7 million on Instagram. *Techinasia*. Available from: <https://www.techinasia.com/thailand-social-media-stats-28-million-facebook-45-million-twitter-17-million-instagram/> [Accessed 8 February 2015].
- Satitniramai, A. (2017) Yellow vs. red and the rise of a new middle class in Thailand. *In: Eickelman, D. F. ed. Citizenship and democratization in Southeast Asia: volume 115.* Leiden: Brill, 289-312.
- Schultz, J. J., Johnson, D. A., Morris, D. and Dyrnes, S. (1993) An investigation of the reporting of questionable acts in an international setting. *Journal of Accounting Research*, 31, 75–103.
- Schultz, J., Osore, O. and Vennen, T. (2010) *Reducing risk of reporting corruption lessons from online complaints system in Kenya.* Bergen: CMI-U4.
- Shughart II, W. F. (2008) Public choice. *Library of Economics and Liberty*. Available from: <http://www.econlib.org/library/Enc/PublicChoice.html> [Accessed 4 February 2016].
- Singleton, T. W. and Singleton, A. J. (2010) *Fraud auditing and forensic accounting.* 4th ed. New Jersey: John Wiley & Sons, Inc.

- Sinpeng, A. (2014a) Corruption, morality, and the politics of reform in Thailand. *Asian Politics & Policy*, 6 (4), 523-538.
- Sinpeng, A. (2014b) Party-social movement coalition in Thailand's political conflict (2005–2011). In: Liangputtong, P., ed. *Contemporary socio-cultural and political perspectives in Thailand*. New York and London: Springer Dordrecht Heidelberg, 157-168.
- Skinner, D. (2008) Interdisciplinary research. In: Given, L. M., ed. *The SAGE encyclopedia of qualitative research methods: volume 2*. California: SAGE Publications, Inc., 447-450.
- Skoric, M. M., Park, Y. J., and Jiang, Y. (2014) Cultural values and digital networks as predictors of sustainable democratic development. In: Servaes, J., ed. *Technological determinism and social change: communication in a tech-mad world*. Lanham: Lexington Books, 87-104.
- Smith, R. (2014) Whistleblowers and suffering. In: Brown, A.J., Lewis, D., Moberly, R. and Vandekerckhove, W. eds. *International handbook on whistleblowing research*. Cheltenham: Edward Elgar Publishing, pp. 230-249.
- Smith, R. W. and Bertozzi, M. (1998) Principal agent: an explanatory model of public budgeting. *Journal of Public Budgeting, Accounting and Financial Management*, 10 (3).
- Sofuoglu, M. (2019) Thai elections: a struggle between democracy and the military. *TRT World* [online], 26 March. Available from: <https://www.trtworld.com/magazine/thai-elections-a-struggle-between-democracy-and-the-military-25272> [Accessed 28 May 2019].
- Socialbaker (2012) Top 10 biggest Facebook cities. *Socialbaker* [online], 14 June. Available from: <http://www.socialbakers.com/blog/647-top-10-biggest-facebook-cities> [Accessed 8 February 2015].
- Stake, R. E. (1978) The case study method in social inquiry. *Educational Researcher*, 7 (2), 5-8.
- Stamler, R. T., Marschdorf, H. J. and Possamai, M. (2014) *Fraud prevention and detection: warning signs and the red flag system*. Boca Raton: CRC Press.

Stephenson, M. C. (2015) Corruption and democratic institutions: a review and synthesis. *In*: Rose-Ackerman, S. and Lagunes, P., eds. *Greed, corruption, and the modern state: essays in political economy*. Cheltenham: Edward Elgar Publishing.

Struwig, F. W. and Stead, G. B. (2001) *Planning, reporting & designing research*. Cape Town: Pearson Education.

Tanakasempipat, P. and Thepgumpanat, P. (2018) Four years after coup, Thais tire of corruption and democratic delays. *Reuters* [online], 17 May. Available from: <https://www.reuters.com/article/us-thailand-politics/four-years-after-coup-thais-tire-of-corruption-and-democratic-delays-idUSKCN1IH37B> [Accessed 28 May 2019].

Tangsupvattana, A. (2012) Political de-development, corruption and governance in Thailand. *In*: Kimura, H., Suharko, Javier, A. B. and Tangsupvattana, A. eds. *Limits of good governance in developing countries*. Yogyakarta: Gadjah Mada University Press, 71-102.

Tanzi, V. (1994) *Corruption, governmental activities, and markets*. IMF Working Paper No.94/99, August.

Teorell, J. (2007) *Corruption as an institution: rethinking the nature and origins of the grabbing hand*. Gothenburg: The Quality of Government Institute, University of Gothenburg (QoG working paper 2007:5).

Thaipublica (2015) อธิปไตยล้มเหลว ผนวกร้างใช้ e-bidding แค่ 4 เดือน ช่วยประหยัด 1.5 พันล้าน – ร่าง กม.จัดซื้อจัดจ้างฉบับใหม่จ่อเข้า สนช. *Thaipublica* [online], 31 July. Available from: <http://thaipublica.org/2015/07/procurement-2558-1/> [Accessed 29 October 2016].

The Nation (2015) Pardons seen as best option for country. *The Nation* [online], 23 February. Available from: <http://www.nationmultimedia.com/webmobile/politics/Pardons-seen-as-best-option-for-country-30254645.html> [Accessed 9 October 2015].

The Nation (2017) *Thailand's image as a corrupt country a serious problem, says expert, after recent survey*. *The Nation* [online], 19 March. Available from: <http://www.nationmultimedia.com/news/national/30309534> [Accessed 17 February 2019].

The New South Wales ICAC (2014) Corruption prevention: looking beyond risk management. *Corruption Matters*, June 2014, Issue 43. Available from: <http://icac.nsw.gov.au/newsletter/issue43/cp-risk-management.html> [Accessed 30 December 2015].

The Secretariat of Cabinet. 2015. *The government's annual report: General Prayuth Chan-ocha (12 September 2014 – 12 September 2015)*. Available from: http://www.soc.go.th/acrobat/payut_report1_13.pdf [Accessed 14 August 2018].

The Secretariat of Cabinet. 2016. *The government's annual report: General Prayuth Chan-ocha (12 September 2015 – 12 September 2016)*. Available from: http://www.soc.go.th/acrobat/payut_report2_13.pdf [Accessed: 14 August 2018].

The Secretariat of Cabinet. 2017. *The government's annual report: General Prayuth Chan-ocha (12 September 2016 – 12 September 2017)*. Available from: http://www.soc.go.th/acrobat/payut_report3_12.pdf [Accessed: 14 August 2018].

The Tor Project (no date) *Tor: overview*. Available from: <https://www.torproject.org/about/overview.html.en> [Accessed: 14 August 2017].

The Worldwatch Institute (2003) *Vital signs 2003: the trends that are shaping our future*. New York and London: Norton & Company, Inc.

Thepumpant, P. and Wongcha-um, P. (2019) Parliament confirms Thai coup leader Prayuth as prime minister. *Reuters* [online], 5 June. Available from: <https://www.reuters.com/article/us-thailand-politics/parliament-confirms-thai-coup-leader-prayuth-as-prime-minister-idUSKCN1T60AM> [Accessed 5 June 2019].

Tirole, J. (1996) A theory of collective reputations (with applications to the persistence of corruption and to firm quality). *The Review of Economic Studies*, 63 (1), 1-22.

Tirole, J. (1993) *A theory of collective reputations with applications to the persistence of corruption and to firm quality*. Working papers 93-13. Massachusetts Institute of Technology (MIT), Department of Economics. Available from:

<https://dspace.mit.edu/bitstream/handle/1721.1/64174/theoryofcollecti00tiro.pdf?sequence=1>
[Accessed 29 January 2019].

Transparency International (2011) *E-procurement reduces opportunities for corruption and bribery*. Brussels: Transparency International.

Transparency International (2014) *Curbing corruption in public procurement: a practical guide*. Berlin: Transparency International. Available from: http://issuu.com/transparencyinternational/docs/2014_anticorruption_publicprocureme?e=2496456/8718192 [Accessed 29 October 2015].

Transparency International (2015) *FAQS on corruption*. Berlin: Transparency International. Available from: http://www.transparency.org/whoweare/organisation/faqs_on_corruption/9/ [Accessed 12 December 2015].

Transparency International (2018a) *Corruption perception index 2018*. Berlin: Transparency International. Available from: <https://www.transparency.org/cpi2018> [Accessed 30 January 2019].

Transparency International (2018b) *FAQs*. Berlin: Transparency International. Available from: https://www.transparency.org/files/content/pages/2018_CPI_FAQs_with_translations.zip [Accessed 17 February 2019].

Transparency International (2018c) *Integrity pacts*. Berlin: Transparency International. Available from: https://www.transparency.org/whatwedo/tools/integrity_pacts/5 [Accessed 5 March 2019].

Transparency International (2018d) *The full data set*. Berlin: Transparency International. Available from: https://www.transparency.org/files/content/pages/2018_CPI_FullResults.zip [Accessed 17 February 2019].

Turner, M. (2018) Public sector reform and national development in East and Southeast Asia: specificity and commonality. In: Bice, S., Poole, A., and Sullivan, H., eds. *Public policy in the 'Asian Century': concepts, cases and futures*. London: Springer, 209-236.

Ugur, M. and Dasgupta, N. (2011) *Evidence on the economic growth impacts of corruption in low-income countries and beyond: a systematic review*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

UN (United Nations) (2015) *Frequently asked questions: what is e-government*. New York: United Nations. Available from: <http://unpan3.un.org/egovkb/en-us/About/UNeGovDD-Framework> [Accessed 30 September 2015].

UNDP (United Nations Development Program) (2006) *APDIP e-note 8 - fighting corruption with e-government applications*. UNDP [online]. Available from: <http://www.unapcict.org/ecohub/resources/apdip-e-note-8-fighting-corruption-with-e/> [Accessed 12 November 2015].

UNDP (United Nations Development Program) (2008) *Procurement fraud and corrupt practices*. New York: UNDP. Available from: <https://info.undp.org/global/popp/cap/Pages/fraud-corrupt-practices.aspx#> [Accessed 25 November 2015].

UNDP (United Nations Development Program) (2012) *UNDP Anti-corruption initiative*. UNDP [online]. Available from: <http://www.th.undp.org/content/thailand/en/home/ourwork/democraticgovernance/anti-corruption-initiative/> [Accessed: 14 October 2014].

UNODC (United Nations Office on Drugs and Crime) (1999) *Global programme against corruption conference: prevention: an effective tool to reduce corruption* [online]. Vienna: UNODC. Available from: https://www.unodc.org/documents/corruption/Publications/1999/Prevention_An_Effective_Tool_to_Reduce_Corruption.pdf [Accessed: 10 June 2018].

UNODC (United Nations Office on Drugs and Crime) (2012) *Introductory handbook on the prevention of recidivism and the social reintegration of offenders*. Vienna: United Nations Publication.

UNODC (United Nations Office on Drugs and Crime) (2013) *Guidebook on anti-corruption in public procurement and the management of public finances: good practices in ensuring compliance with article 9 of the United Nations convention against corruption*. Vienna: United Nations Publication.

Van Evera, S. (2015) *Guide to methods for students of political science*. New York: Cornell University Press.

Van Schoor, B. (2017) *Fighting corruption collectively: how successful are sector-specific coordinated governance initiatives in curbing corruption?*. Wiesbaden: Springer VS.

Vandekerckhove, W. (2006) *Whistleblowing and organizational social responsibility: a global assessment*. Hampshire: Ashgate Publishing, Ltd.

Vandekerckhove, W., Uys, T., Rehg, M. T. and Brown, A. J. (2014) Understandings of whistleblowing: dilemmas of social culture. In: Brown, A.J., Lewis, D., Moberly, R. and Vandekerckhove, W., eds. *International handbook on whistleblowing research*. Cheltenham: Edward Elgar Publishing, pp. 37-70.

Vander Beken, T. (2001) General conclusions & recommendations. In: Beken, T. V., De Ruyver, B. and Siron, N., eds. *The organisation of the fight against corruption in the member states and candidate countries of the European Union*. Antwerpen: Maklu-Uitgevers nv.

Vannucci, A. (2009) The controversial legacy of 'Mani Pulite': a critical analysis of Italian corruption and anti-corruption policies. *Bulletin of Italian Politics*, 1(2), 233-64.

Vargas-Hernandez, J. G. (2010) The multiple faces of corruption: typology, forms and levels. In: Stachowicz-Stanusch, A., ed. *Organizational immunity to corruption: building theoretical and research foundations*. Charlotte: Information Age Publishing, Inc.

Vichit-Vadakan, J. (2008) Third sector organization governance in Thailand. In: Hasan, S. and Onyx, J., eds. *Comparative third sector governance in Asia: structure, process, and political economy*. New York: Springer Science & Business Media, 293-308.

Vichit-Vadakan, J. (2011) Public ethics and corruption in Thailand. *In: Berman, E. M., ed. Public administration in Southeast Asia: Thailand, Philippines, Malaysia, Hong Kong, and Macao.* New York: CRC Press, 79-94.

Ware, G. T., Moss, S., Campos, J. E. and Noone, G. P. (2011) Corruption in procurement. *In: Graycar, A. and Smith, R. G., eds. Handbook of global research and practice in corruption.* Cheltenham: Edward Elgar Publishing, 65-121.

Warf, B. (2019) *Global corruption from a geographic perspective.* Cham: Springer.

Warsta, M. (2004) *Corruption in Thailand.* International Management: Asia Swiss Federal Institute of Technology Zurich, April 22nd 2004 [online]. Available from: http://aceproject.org/ero-en/regions/asia/TH/Corruption_in_Thailand.pdf [Accessed 11 June 2018].

We Are Social Agency (2014) *Global digital statistics 2014: we are social's snapshot of key digital indicators.* Singapore: We Are Social.

We Are Social Agency (2015) *Digital, social & mobile in 2015: we are social's compendium of global digital statistics.* Singapore: We Are Social.

We Are Social Agency (2016) *Digital in 2016: we are social's compendium of global digital, social, and mobile data, trends, and statistics.* Singapore: We Are Social.

World Economic Forum (2017) *The global competitiveness report 2016-2017.* Geneva: WEF. Available from: http://www3.weforum.org/docs/GCR2016-2017/05FullReport/TheGlobalCompetitivenessReport2016-2017_FINAL.pdf [Accessed 20 June 2018].

Weingast, B. R. (1997) The political foundations of democracy and the rule of law. *The American Political Science Review*, 91(2), 245-63.

Wells, J. T. (2013) *Corporate fraud handbook: prevention and detection.* 4th ed. New Jersey: John Wiley & Sons, Inc.

Werner, S. B. (2009) The development of political corruption in Israel. *In*: Heidenheimer, A. J. and Johnston, M., eds. *Political corruption: concepts and contexts*. 3rd ed. New Jersey: Transaction Publishers.

Woo, J. and Choi, E. (2018) *Political corruption and democratic governance*. London/New York: The Rowman & Littlefield Publishing Group, Inc.

World Bank (1997) *Helping countries combat corruption: the role of the World Bank*. Washington, DC.: The World Bank Group.

World Bank (2003) *Electronic government procurement (e-GP): world bank draft strategy*. Washington, DC.: The World Bank Group.

World Bank (2011) *Thailand now an upper middle income economy*. Available from: <http://www.worldbank.org/en/news/press-release/2011/08/02/thailand-now-upper-middle-income-economy> [Accessed 26 May 2019].

World Bank (2016) *Enterprise surveys: what businesses experience*. Washington, DC.: The World Bank Group.

World Bank (2018) *The World Bank in Thailand: overview*. Available from: <http://www.worldbank.org/en/country/thailand/overview> [Accessed 17 July 2018].

World Bank (2019a) *Cambodia*. Available from: <https://data.worldbank.org/country/cambodia> [Accessed 26 May 2019].

World Bank (2019b) *DataBank: World development indicators*. Available from: <https://databank.worldbank.org/data/indicator/NY.GNP.PCAP.CD/1ff4a498/Popular-Indicators> [Accessed 26 May 2019].

World Bank (2019c) *Indonesia*. Available from: <https://data.worldbank.org/country/indonesia> [Accessed 26 May 2019].

World Bank (2019d) *Malaysia*. Available from: <https://data.worldbank.org/country/malaysia> [Accessed 26 May 2019].

World Bank (2019e) *Myanmar*. Available from: <https://data.worldbank.org/country/myanmar> [Accessed 26 May 2019].

World Bank (2019f) *Singapore*. Available from: <https://data.worldbank.org/country/singapore> [Accessed 26 May 2019].

World Bank (2019g) *Thailand*. Available from: <https://data.worldbank.org/country/thailand> [Accessed 26 May 2019].

Worldometers (no date) *Population of Thailand (2017 and historical)* [Online]. Available from: <http://www.worldometers.info/world-population/thailand-population/> [Accessed: 4 April 2017].

Wortley, R., Cassematis, P. and Donkin, M. (2008) Who blows the whistle, who doesn't and why? In: Brown, A.J., ed. *Whistleblowing in the Australian public sector: enhancing the theory and practice of internal witness management in public sector organisations*. Canberra: The Australian National University, 53-82.

Wungaeo, C. B. (2016) Thailand's political crisis: the perplexities of democracy and society. In: Wungaeo, C. B., Rehbein, B. and Wun'gaeo, S., eds. *Globalization and democracy in Southeast Asia: challenges, responses and alternative futures*. London: Palgrave Macmillan.

Yin, R. K. (1994) *Case study research: design and methods*. 2nd ed. California: Sage Publications.

Yin, R. K. (2012) *Applications of case study research*. 3rd ed. California: Sage Publications.

Yin, R. K. (2013) *Case study research: design and methods*. 5th ed. California: Sage Publications.

Yonpiam, C. and Boonlert, T. (2019) Unrest cycle risks repeat. *Bangkok Post* [online], 7 April. Available from: <https://www.bangkokpost.com/news/special-reports/1657704/unrest-cycle-risks-repeat> [Accessed 28 May 2019].

Yukins, C. (2015) *Corruption in procurement: a conversation with Christopher Yukins*. Laxenburg: International Anti-Corruption Academy. Available from: <http://www.iaca.int/513-a-conversation.html> [Accessed 29 October 2015].

Zanella, M. (2013) Script analysis of corruption in public procurement. *In*: Leclerc, B. and Wortley, R., eds. *Cognition and crime offender decision making and script analyses*. New York: Routledge, 164-185.

Zhang, Y. (2015) What can we learn from worldwide anti-corruption practices? *In*: Zhang, Y. and Lavena, C., eds. *Government anti-corruption strategies: a cross-cultural perspective*. Boca Raton: CRC Press.